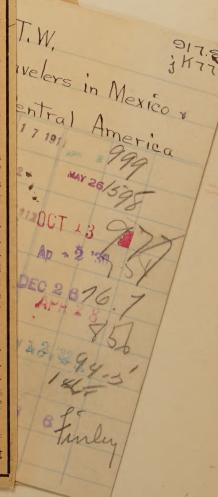


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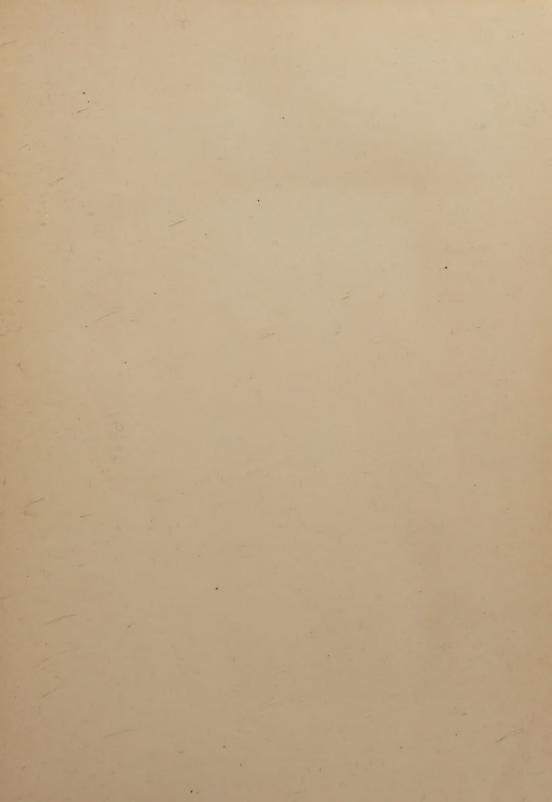
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THE BOY TRAVELLERS IN

MEXICO

ADVENTURES OF TWO YOUTHS IN A JOURNEY TO

NORTHERN AND CENTRAL MEXICO, CAMPEACHEY, AND YUCATAN, WITH A
DESCRIPTION OF THE REPUBLICS OF CENTRAL AMERICA
AND OF THE NICARAGUA CANAL

BY

THOMAS W. KNOX

AUTHOR OF

"THE BOY TRAVELLERS IN THE FAR EAST" "IN SOUTH AMERICA" "IN RUSSIA"
"ON THE CONGO" AND "IN AUSTRALASIA" "THE YOUNG NIMRODS"
"THE VOYAGE OF THE 'VIVIAN'" ETC.

Illustrated

NEW YORK AND LONDON
HARPER & BROTHERS PUBLISHERS

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PREFACE.

TNTIL within the past few years, Mexico was a country not easily reached from the principal cities of the United States, and our relations with it were by no means intimate. Since the completion of the railway from the frontier of Texas to the heart of the most northerly of the Spanish-American republics, there has been a rapid development of commercial and social relations between Mexico and the United States, and the tide of travel from one country to the other is steadily increasing year by year. These circumstances have led the author of "The Boy Travellers" to believe that his young friends everywhere would welcome a book describing the land of the Aztecs, its history and resources, the manners and customs of its people, and the many curious things to be seen, and adventures passed through, in a journey from one end of that country to the other.

In this belief he sought the aid of his and their friends, Frank and Fred, immediately after their return from Australasia. Ever ready to be of service, the youths assented to his request to make a tour of the Mexican republic, in company with their guide and mentor, Doctor Bronson, and the result of their journey is set forth in the following pages. It is confidently hoped that the narrative will be found in every particular fully equal to any of its predecessors in the series to which it belongs.

The methods on which the Boy Travellers have hitherto performed their work have been adhered to in the present volume. In addition to his personal acquaintance with Mexico and travels in that country, the author has drawn upon the observations of those who have preceded and followed him there. He has consulted books of history, travel, and statistics in great number, has sought the best and most accurate maps, and while his work was in progress he consulted many persons familiar with Mexico, and was in frequent correspondence with gentlemen now residing there. He has sought to bring the social, political, and commercial history of the country down to the latest date, and to present a truthful

picture of the present status of our sister republic. The result of his efforts he submits herewith to the judgment of his readers.

Many of the works that have been consulted are named in the text, but it has not been convenient to refer to all. Among those to which the author is indebted may be mentioned the following: Bishop's "Old Mexico and her Lost Provinces," Griffin's "Mexico of To-day," Haven's "Our Next-door Neighbor," Charnay's "Ancient Cities of the New World," Squier's "Nicaragua" and "Central America," Wells's "Honduras," Stephens's "Travels in Central America, Chiapas, and Yucatan," Baldwin's "Ancient America," Wilson's "Mexico and its Religions," Abbott's "Hernando Cortez," Prescott's "Conquest of Mexico," Ober's "Travels in Mexico," Geiger's "Peep at Mexico," Gooch's "Face to Face with the Mexicans," Chevalier's "Mexique Ancien et Moderne," and the hand-books of Janvier, Conkling, and Hamilton.

As in the other "Boy Traveller" volumes, the author is indebted to the liberality of his publishers, Messrs. Harper & Brothers, for the use of engravings that have appeared in previous publications relative to Mexico and Central America, in addition to those specially prepared for this book. As a result of their generosity, he has been enabled to add greatly to the interest of the work, particularly to the younger portion of his readers, for whom illustrations always have an especial charm.

T. W. K.

NEW YORK, June, 1889.

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THE BOY TRAVELLERS

IN

MEXICO.

CHAPTER I.

PREPARATIONS FOR DEPARTURE.—PLANS FOR THE JOURNEY.—TO MEXICO BY RAIL.—BAGGAGE, AND BOOKS ON THE COUNTRY.—BRUSHING UP THEIR KNOWLEDGE OF SPANISH.—WESTWARD FROM NEW YORK.—A HALT AT ST. LOUIS.—SAN ANTONIO, TEXAS.—VISIT TO THE ALAMO.—REMINISCENCES OF THE FALL OF THE ALAMO.—BATTLE OF SAN JACINTO AND INDEPENDENCE OF TEXAS.—NOTES ON THE RAILWAYS OF NORTHERN MEXICO.—OLD TEXAS AND MODERN CHANGES.—"G. T. T."—PRESENT WEALTH OF THE STATE.—ARRIVAL ON THE FRONTIER OF MEXICO.

"I'VE news for you, Frank!" "Well, what is it?"

"We're going to Mexico next week," answered Fred; "at any rate, that is uncle's plan, and he will tell us all about it this evening."

"The news is good news," was the reply; "for Mexico is one of the countries that just now I want very much to see. We have heard a great deal about it since the railway was completed to the capital; and then, you know, the Mexicans are our neighbors."

"That is true," said Fred; "here we've been going all over the rest of the world, and haven't yet called



A NEXT-DOOR NEIGHBOR.

on our neighbors, and next-door neighbors too. But we're not alone in

this, as it is probable that for every inhabitant of the Northern States who has visited Mexico, a hundred have been across the Atlantic."

This conversation occurred between Frank Bassett and Fred Bronson shortly after returning from their tour among the islands of the Pacific Ocean and through New Zealand, Tasmania, and Australia. The accounts of their journeys have appeared in several volumes, with which our readers are or should be familiar.*

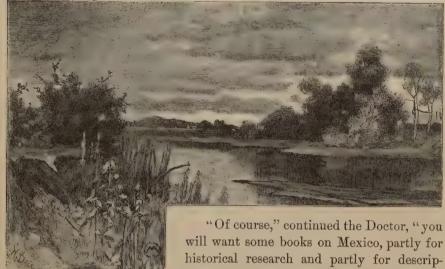
The youths waited with some impatience until evening, when they were to hear from Doctor Bronson the details of the proposed trip. In the mean time they devoted themselves to their Spanish grammars and dictionaries, which they had not seen for months, owing to their occupation with other matters. And we may here add that until their departure and while they were on the road, every moment that could be applied to the study of the language of the country whither they were bound was industriously employed. By the time they crossed the border they were able to speak Spanish very well, and had very little need of interpreters.

"We shall go to Mexico by rail," said the Doctor, "and return by sea; at any rate, that is my plan at present, but circumstances may change it. It is my intention to visit the principal cities and other places of interest, and also to give some attention to the antiquities of the country and of Central America; exactly what places we shall see I cannot say at this moment, nor how long we shall be absent."

"What shall we need in the way of baggage?" one of the youths asked.

"About what you need for a long journey north and south in the United States," was the reply. "You will need clothing for hot weather as well as for cold. We shall find it quite chilly in certain parts of the tierra fria, or highlands, and warm enough in the tierra caliente, or low-lands along the coast. You must have outer and under clothing adapted to warm and cool climates, and your ulsters may be placed for convenience in the same bundle with your linen dusters. Have a good supply of underclothing, as the facilities for laundry-work are not the best, even in the large cities; but do not load yourselves with anything not absolutely necessary, as the Mexican railways allow only thirty-three pounds of baggage to a local passenger, and the charges for extra weight are high. Passengers with through tickets from the United States are entitled to one hundred and fifty pounds of baggage free.

^{* &}quot;The Boy Travellers in the Far East" (five volumes), and "The Boy Travellers in South America," "The Boy Travellers in the Russian Empire," "The Boy Travellers on the Congo," and "The Boy Travellers in Australasia" (four volumes). See complete list at the end of this book.



THE MEXICAN FRONTIER.

will want some books on Mexico, partly for historical research and partly for description. There is an excellent guide-book which was written by Mr. Janvier, and there is another by Mr. Conkling; get them both, and also 'Old Mexico and her Lost Provinces,'

by Mr. Bishop, 'Mexico of To-day,' by Mr. Griffin, and 'Our Next-door Neighbor,' by Bishop Haven. Don't forget Charnay's 'Ancient Cities of the New World,' and Prescott's 'Conquest of Mexico.' You can read the latter book before we go; it is inconveniently large for travelling purposes, and so we will leave it behind us, as we can easily find it in the City of Mexico, in case we wish to refer to it again. Abbott's 'Life of Hernando Cortez' is a more portable work, and will serve to refresh your memory concerning what you read in Prescott's volumes."

The conversation lasted an hour or more, and by the time it ended the boys almost felt that they were already in the land of the Aztecs. Their dreams through the night were of ancient temples and modern palaces, Aztec and Spanish warriors, snowy mountains and palm-covered plains, mines of silver and other metals, fortresses, cathedrals, haciendas and hovels, and of many races and tribes of men that dwell in the land they were about to see. Fred declared in the morning that he had dreamed of Montezuma and Maximilian walking arm in arm, and Frank professed to have had a similar vision concerning Cortez and General Scott.

For the next few days the youths had no spare time on their hands, and when the start was made for the proposed journey they were well prepared for it both mentally and materially. They had followed Doctor Bronson's directions as to their outfit of clothing and other things, had procured the books which he named, and, as we have already seen, had made a vigorous overhauling of their Spanish grammars and phrase-books.

From New York there are several routes westward, as our readers are pretty well aware, and the youths were a little puzzled to know which one



SCENE ON THE PENNSYLVANIA RAILROAD.

would be chosen. The mystery was solved by the Doctor on the day before their departure. He announced that they would go to St. Louis by the Pennsylvania Railroad, and from there to the frontier of Mexico by the Missouri Pacific and Southern Pacific lines. "And now," said he, "I



STREET IN EL PASO.

will leave you to choose the route to the capital city, and you need not decide until we reach St. Louis."

The Doctor's suggestion compelled a study of the maps and a careful reading of the guide-books and other literature pertaining to the journey. The result of their study may be summed up as follows from an entry which Frank made in his note-book:

"The first railway which was opened from the United States to the City of Mexico was the Mexican Central, which runs from El Paso, Texas, or rather from Paso del Norte, Mexico, which is opposite to El Paso, on the other side of the Rio Grande. Its length is 1224 miles, and it was completed March 8, 1884, at the station of Fresnillo, 750 miles from Paso

del Norte, the line having been built from both ends at the same time. Three years and six months were required for its construction, and the line is said to have cost more than thirty-two millions of dollars; eight miles of track were laid during the last day of the work before the two ends of the line were brought together; and considering all the disadvantages of the enterprise, it reflects great credit upon those who managed it.

"For more than four years the Mexican Central was the only all-rail route for travellers from the United States to the City of Mexico, and it had a practical monopoly of business. In 1888 two other lines were opened; or perhaps we might say, another line and half of a third. These are the Mexican National Railway, from Laredo, Texas, to Mexico City, a distance of 825 miles, and the International Railway, from Piedras Negras, Mexico, opposite Eagle Pass, Texas, to a point on the Mexican Central, about half-way between El Paso and Mexico. The International is the one which we call half a line, as it makes a new route into Mexico, and from all we can learn a very good one too.

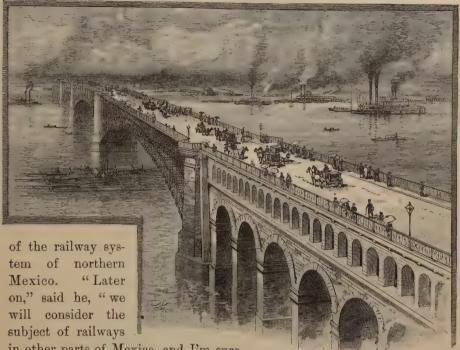
"The Central is a standard-gauge road, four feet eight and one-half inches wide, while the National is a narrow-gauge line, three feet between the rails; the advantage of the National line is that it is much shorter than the Central, as I will proceed to show.

"From St. Louis to Mexico City, by way of Laredo, the distance is 1823 miles, while by the Central line it is 2584 miles; there is thus a saving of 761 miles, or about thirty hours in time. But the Central will take us through five or six interesting cities, while the National only goes near Monterey, San Luis Potosi, and Toluca.

"Fred and I have decided to ask uncle to go by neither one route nor the other, but to travel by both of them, and the International line in addition; and this is the way we propose to do it:

"We'll go from St. Louis to Laredo because of the saving of time and distance, and then we'll go to Monterey, which is an interesting city, by the National Railway. After we've done Monterey we'll go farther on, to Saltillo, and there we can cross over to Jaral, about forty miles, and find ourselves on the main line of the International Railway. There the train will pick us up and carry us to Torreon, on the Mexican Central Railway, and from there we can continue to the capital, seeing the best part of the Central line, or rather of the country through which it runs. The northern part of the route of the Central is said to be dreary and uninteresting, and so we shall be able to avoid it by the plan we have made."

The scheme was duly unfolded to the Doctor, who promptly gave his approval and commended the youths for the careful study they had made



in other parts of Mexico, and I'm sure you will be able to make some interesting notes about it for your friends

BRIDGE OVER THE MISSISSIPPI AT ST. LOUIS.

at home. Mexico was for a long time very backward in railway enterprises, but in the past few years she has gone ahead very rapidly. Ten years ago there were not five hundred miles of railway in the country; now there are nearly, if not quite, five thousand miles, and in ten years from this time there will be double that number. The Mexico of to-day is very different from the Mexico of a quarter of a century ago."

Our friends stopped a day in St. Louis, and another at San Antonio, Texas, partly for sight-seeing purposes and partly for rest. At the former city the great bridge over the Mississippi excited the wonder and admiration of the youths, who heard with much interest the story of its construction and the difficulties which the engineers encountered in laying the foundations. At San Antonio they had their first glimpse of Mexican life, as the city is quite Mexican in character, and at one time was almost wholly so. Doctor Bronson told them that about one-third of the inhabitants are of Mexican origin, and they could easily believe it as they saw the Mexican features all about them on the streets, and heard the Spanish language quite as often as any other.

The object of greatest interest to them was the Alamo, the old fort which, in 1836, the Texans, who were fighting for independence, so heroically but unsuccessfully defended. They were disappointed to find that there is not much remaining of the fort, which originally consisted of an oblong enclosure, about an acre in extent, with walls three feet thick, and eight or ten feet high. "There were 144 men in the Alamo, and they were besieged by 4000 Mexican troops under General Santa Anna," said a gentleman who accompanied them to the spot. "The Mexicans had artillery, and the Texans had none, and against such odds it was hopeless to resist. Santa Anna sent a summons for them to surrender, and throw themselves upon Mexican mercy, but they refused to do so, and defied him and his army."

As he paused a moment, Fred asked why they refused to surrender when the odds were so much against them.

"They knew what Mexican mercy was," said the gentleman. "It was illustrated not long afterwards at Goliad, where Colonel Fannin surrendered with 412 men as prisoners of war. They were promised to be released under the rules of war, and one Sunday morning, when they were singing 'Home, sweet home,' they were marched out and massacred, every



THE ALAMO MISSION, SAN ANTONIO.

man of them. The slaughter lasted from six till eight, and then the bodies of the slain were burned by orders of the general. It is proper to say that the Mexican officers were generally disgusted with the terrible business, but they were obliged to obey the orders of Santa Anna, or be themselves

shot down. His policy was one of extermination, and he could have said on his death-bed that he left no enemies behind him, as he had killed them all.

"Well," continued their informant, "the siege of the Alamo began on the 23d of February, 1836, and lasted for thirteen days. Over 200 shells



GEN. SAM HOUSTON, THE LIBERATOR OF TEXAS.

were thrown into the fort in the first twenty-four hours, but not a man was injured by them, while the Texan sharp-shooters picked off a great number of the Mexicans. Santa Anna made several assaults, but was driven back each time, and it is believed that he lost fully 1500 men in the siege. On the morning of the 6th of March a final assault was made, and the fort was captured; every man was killed in the fighting except-

ing six who surrendered, and among the six was the famous Col. David Crockett. Santa Anna ordered all of them to be cut to pieces, and Crockett fell with a dozen sword-wounds after his own weapons had been given up. Colonel Travis, who commanded the fort, was also killed, and so was Colonel Bowie, who was ill in bed at the time, and was shot where he lay. He was the inventor of the bowie-knife, which has been famous through the West and South-west for a good many years. Only three persons were spared from death, a woman, a child, and a servant."

"How long was that before the battle of San Jacinto?" one of the youths asked.

"Less than seven weeks," was the reply, "and never was there a more complete victory than at that battle. Gen. Sam Houston retreated slowly, and was followed by the Mexican army. He burned a bridge behind his enemies, and suddenly attacking them on the afternoon of April 21st, he killed half their number and captured nearly all the rest. The warcry of the Texans was 'Remember the Alamo! remember Goliad!' and maddened by the recollection of the cruelties of the Mexicans, they fought like tigers, and carried everything before them. Santa Anna, disguised as a soldier, was captured the next day; Houston had hard work to save him from the fury of the Texans, but he was saved, and lived to fight again ten years later. But the battle of San Jacinto ended the war, and made Texas independent of Mexico."

A ride of a hundred and fifty miles to the south-west from San Antonio brought our friends to Laredo, on the banks of the Rio Grande, the dividing line between the United States and Mexico. The ride was through a thinly settled country, devoted principally to grazing, and there were few objects of interest along the route. The time was varied with looking from the windows of the car, with the perusal of books, and by conversation concerning the Texan war for independence, to which the thoughts of the party had naturally turned through their visit to the Alamo at San Antonio.

"Texas was a province of Mexico," said the Doctor, "in the early part of the present century, the Spaniards having established missions and stations there at the same time that the French established missions and military posts in Louisiana. The territorial boundaries between France and Spain were never very clearly defined; the two countries were in a constant quarrel about their rights, and when we purchased the Louisiana territory from France we inherited the dispute about the boundaries. Adventurers from various parts of the United States poured into the country, and the population was more American than Mexican; there were many

respectable men among the American settlers, but there was also a considerable proportion of what might be called 'a bad lot.'"

"I have read somewhere," said Frank, "a couplet which is said to have been composed by a resident of the country fifty years ago, and to have given the State its name.

"'When every other land rejects us, This is the land that freely takes us."

"And I," said Fred, "have read somewhere that when a man ran away to cheat his creditors, or for any more serious reason, it was commonly said that he had 'gone to Texas.' When the sheriffs looked for somebody

whom they wished to arrest and were unable to find him, they indorsed the warrant with the initial letters 'G. T. T.' before returning it to the authorities who issued it. Sometimes an absconding debtor saved his friends the trouble of looking for him by leaving on his door a card bearing these interesting letters."

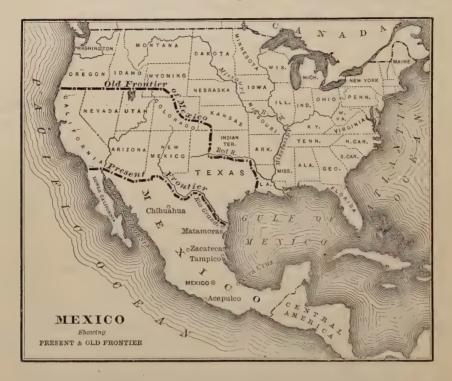
"Undoubtedly," continued the Doctor, "there was a rough population in Texas in those days, but the men composing it were not deficient in bravery, and they had the spirit of independence in the fullest degree. While the United States and Mexico were disputing about the boundaries, the Texans set up a claim for independence, and the war which was ended by the battle of San Jacinto was like our Revolutionary War a hundred



and more years ago. After Texas had secured her independence, she set up a government of her own; she had a president and all the other officials pertaining to a republic, and was recognized by England, France, and other European countries. This did not last long, as her finances fell into a deplorable condition, and the preponderance of Americans among the population naturally led to a movement for annexation to the United States. Annexation was followed by war with Mexico, and it grew out of the old dispute about the boundaries. Mexico claimed all land west of the Nueces River, while Texas claimed to own as far west as the Rio Grande. Each

country believed it was right, and our war with Mexico resulted in the defeat of the Mexican armies, the occupation of their capital, and the establishment of the right of the United States to all territory east of the Rio Grande."

"Texas is therefore one of the lost provinces of Mexico," said Frank.



"Yes," was the reply; "it is one of them, and a very large one, as it has an area of nearly three hundred thousand square miles, and is a country of great future possibilities. But Texas was by no means the greatest of the losses of Mexico by the war, as California, Nevada, Utah, Arizona, and New Mexico were taken by us as compensation for our trouble, and you know what they are to-day. About the time that the treaty of peace was signed and the cession of territory made, gold was discovered in California, and the wonderful wealth of the Pacific coast and the Rocky Mountain region was rapidly developed. Look on the map in Mr. Bishop's book and see what Mexico was before and after the war."

The boys made a careful inspection of the map, and as it will be interesting to their friends at home, we here reproduce it.

"The Mexicans were severely punished for their cruelty to the Tex-



A GROUP OF TEXAN HUNTERS.

ans," said Fred, "and were probably sorry for their butcheries at Goliad and the Alamo when they sat down to think of the war and how it turned out.

"The responsibility for those butcheries rests rather upon General Santa Anna than on the officers and soldiers who executed his orders. He started out in a war of extermination, and there is abundant evidence that his officers loathed the work they had to perform. One of them, writing from Goliad at the time of the massacre of Colonel Fannin and his men, said, 'This day, Palm Sunday, has been to me a day of heart-felt sorrow. What an awful scene did the field present when the prisoners were executed and fell in heaps, and what spectator could view it without horror!' It has been said that the feeble resistance that Santa Anna's men made at the battle of San Jacinto was in consequence of the willingness of officers

and soldiers to be captured so that the terrible war could come to an end."

"Texas is now a very prosperous State," continued the Doctor; "the value of its taxable property is nearly seven hundred millions of dollars, and some authorities say it is more, and it has seven millions of cattle, ten millions of sheep, and horses and mules in proportion. By the census of 1880 it had a population of more than one and a half millions, and it is probable that 1890 will give it more than two millions. Its area would make five States as large as New York, thirty-three as large as Massachusetts, and two hundred and twelve of the size of Rhode Island. That it has changed greatly from the days before the annexation, and is favorable to peace and good order, is shown by its liberal appropriation for schools, its laws relative to the sale of intoxicating drinks, the fines it imposes for carrying pistols and bowie-knives, and its penalties for using them."

There was further conversation about the south-west and its peculiarities, when the train reached the frontier and attention was turned to Mexico and the new land that they were about to visit.



VIEW IN SAN ANTONIO, TEXAS.

CHAPTER II.

HOTELS ON THE FRONTIER.—ACCOMMODATIONS AT LAREDO.—SMUGGLING OVER THE BORDER.—LAREDO AS A RAILWAY CENTRE.—THE RIO GRANDE AND ITS PECULIARITIES.—RIVERS BENEATH THE SANDS.—ENTERING MEXICAN TERRITORY.—EXAMINATIONS AT THE CUSTOM-HOUSE.—MEXICAN TARIFFS.—BRIBERY AMONG OFFICIALS.—LEAVING NUEVO LAREDO.—A DREARY PLAIN.—FELLOW-PASSENGERS WITH OUR FRIENDS.—A MEXICAN IRISHMAN.—PEOPLE AT THE. STATIONS.—ADOBE HOUSES; HOW THEY ARE MADE.—THE LAND OF MAÑANA.—POCO TIEMPO AND QUIEN SABE.—LAMPASAS.—MESA DE LOS CARTUJANOS.—PRODUCTS OF NUEVO LEON.—SADDLE AND MITRE MOUNTAINS.—MONTEREY.

IT was nine o'clock in the evening when the train reached Laredo from San Antonio, and our friends found that they would have to pass the night in the town. They had been recommended to patronize the Commercial Hotel; their informant said he could not speak loudly in its



ON THE BANKS OF THE RIO GRANDE.

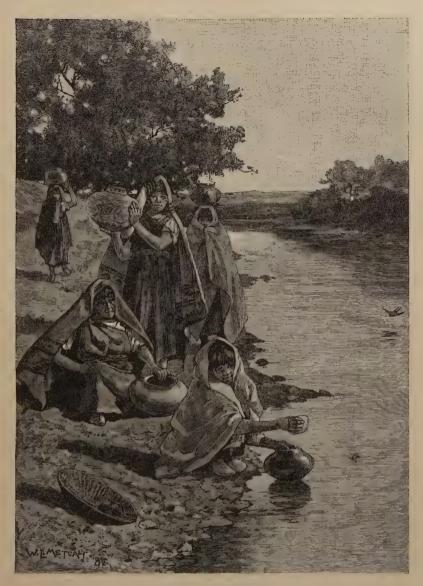
praise. "It is the least bad of the hotels in the place," said he, "and a great deal better than sleeping on the ground in the open air, as you would have been obliged to do here only a few years ago. In the language of the far West, it beats nothing all out of sight."

There was a sign of civilization in the shape of an omnibus, rather a rickety and weak-springed affair, it is true, but still an omnibus, and it carried them safely to the hotel, whither their baggage followed in a wagon. The crowd around the station when the train arrived was a mixture of American and Mexican, with a few Indians by way of variety. The population of the frontier is quite a puzzle to the ethnologist at times, and the work of classification is by no means easy. Some of the patrons of the hotel were Mexicans of the better sort, and they mingled freely with the Americans who had lived long enough in Texas to feel at home. The Texas towns along the border contain a goodly number of residents who are engaged in defrauding the revenue of Mexico by engaging in the business of smuggling goods into that country; there is also a fair amount of smuggling from Mexico into the United States, and the customs officials on both sides are kept reasonably busy in seeing that the rights of their respective nations are defended. The peculiarity of revenue laws all the world over is that every country considers it quite proper to violate those of any other, but is very indignant if its own regulations are not respected.

Supper at the hotel was endurable by hungry travellers, but would have failed to meet the desires of the epicure; and the same may be said of breakfast on the following morning. As the train for Mexico started at eight o'clock,* there was not much time for sight-seeing after breakfast, though sufficient to discover that Laredo was a comparatively new town, whose existence was mainly due to the railways that lead to it. There was a town there in the early days of the Spanish colonization, but it was completely destroyed in the frontier troubles, and the site was deserted until Texas became one of the United States. The International and Great Northern Railway runs to San Antonio and beyond: one division of the Mexican National Railway, known as the Texas-Mexican, connects Laredo with Corpus Christi, on the Gulf of Mexico, 160 miles away; and the next, called the Northern Division, unites it with the City of Mexico. Other railways are projected, and those who have corner or other lots in Laredo predict a great future for the city.

The Rio Grande is not an imposing river at Laredo, and our young

^{*} Since the Boy Travellers made their journey through Mexico the time-table of the Mexican National Railway has been changed. The express train leaves Laredo at 6.35 P.M., and Nuevo Laredo at 8.20. Monterey is reached at 2.40 A.M., and Saltillo, where passengers take breakfast, at 6.20. They dine at Catorce, sup at San Luis Potosi, and reach the City of Mexico at 9.50 on the second morning after their departure from the Rio Grande.



INDIAN WATER-CARRIERS.

friends were disappointed when they saw it. They had looked for a stream of magnitude, as implied by the name, and were not prepared for one that could be forded without much danger, and was so diminutive as to remind them of those rivers of the Western States where it is necessary to use a sprinkling-pot at certain seasons of the year to let strangers know where

the stream is. The Doctor told them that the Rio Grande was known as the Rio Bravo in the lower part of its course, and Frank suggested that it was because the river was very brave to come so far with such poor encouragement.

"But the stream which now looks so insignificant," Doctor Bronson explained, "is subject to periodical floods, owing to the melting of the snows in the mountains where it takes its rise. They begin in April, reach their greatest height in May, and subside in June, and while they last they fill the whole bed of the stream, and overflow the banks wherever they are low. Some of its tributaries at such times are roaring floods, while ordinarily they are only dry beds, where not a drop of water can be seen for many miles. But if you dig a few feet into the sandy bed of these streams you will find water; emigrants travelling through this country carry an empty barrel from which both heads are removed, and by sinking this barrel into the sand they obtain a plentiful supply of water. A knowledge of this fact has saved many lives, and ignorance of it has caused deaths by thirst when suffering might easily have been avoided."

The first bridge erected by the railway company at Laredo was of wood; it served its purpose until the first flood, when it was torn from its foundations and carried away. The present bridge is a substantial one of iron, and promises to last a long time.

From Laredo the train moved slowly across the river, along a bridge whose height was intended to make it secure against the severest floods, until it reached the station of Nuevo Laredo, on the Mexican side, two or three miles from Texan Laredo. Here there was an examination of baggage by the Mexican customs officials; they were polite, and our friends had learned from long experience in custom-houses to be polite in return. The result was that the examination of their belongings was very slight, while that of some of the passengers who displayed ill manners was much more severe. The Doctor and the youths produced the keys of their trunks and opened them before being asked to do so, and promptly announced the contents of the receptacles. They had nothing dutiable, and in a very few minutes the ordeal was ended.

Frank made the following note about the Mexican custom-house:

"Mexico is a land of high tariffs, and pretty nearly everything that can be imported is taxed. Machinery was formerly imported free, but it is now subject to duty, and so is almost everything except agricultural and scientific instruments and books. There is also a duty on packages apart from their contents, and there is a heavy duty on all kinds of carriages. Baggage for personal use is admitted free of duty, unless there is reason

to suspect that the owner has an intention to sell; two or three suits of clothing will pass without question, but ten or twelve would be liable to detention and duty. The laws require that the examination of baggage shall be conducted 'liberally, and with prudence and moderation,' and certainly we have no occasion to complain of discourtesy. In addition to clothing 'not excessive in quantity,' a traveller may have two watches with their chains, a cane, an umbrella, one or two pistols with equipments and cartridges, one hundred cigars, forty small packages of cigarettes, a rifle or fowling-piece, one pound of smoking tobacco or snuff, and any musical instruments in actual use except pianos and organs. When



AN OLD MEXICAN CHAPEL BY MOONLIGHT.

a resident of the United States crosses the Rio Grande into Mexican territory with his own carriage he must pay the duties on the vehicle, or give a bond for their payment in case he does not return to the United States.

"As the relations of the United States and Mexico increase in intimacy, it is probable that there will be a reciprocity treaty; negotiations to that end have been going on for some time, but are delayed by the usual 'hitches' that arise in such matters. At the entrance of Mexican cities there is an examination something like the *octroi* of European cities, but so far as tourists are concerned it is very slight. They merely declare

that they have nothing dutiable, and are allowed to pass on. There is an examination on leaving Mexico, as there is an export duty of five per cent. on bullion, and a prohibition against taking antiquities from the country. As a matter of fact, a good many antiquities are carried away, but as the greater part of them are fictitious the restriction is not rigidly enforced.



VIEW IN NUEVO LAREDO.

"We have heard several stories about how the Mexican custom-house is defrauded by the bribery of officials, but have no means of knowing if they are true or false. Certainly we did not offer any money to the men at the custom-house, and none of them intimated that he desired to be bribed. If a quarter of the stories have any truth at all, there must be a great deal of dishonesty along the frontier, but it is not confined to the Mexicans.

"Pack-trains loaded with dutiable goods start openly from the frontier towns of Texas, ford the river, and make their way into the interior of Mexico. The trade is so large that it could hardly be carried on without official connivance. The author of 'Mexico of To-day' says in regard to this subject: 'Those well informed with regard to trade interests agree that a great deal of smuggling exists, owing to the high tariff and the great frontier stretch that invites law-breakers. It is said that

millions more of American goods find their way into Mexico than show in the statistics prepared by either Government.'

"Another writer says: 'The traveller is permitted to enter all his personal apparel free of duty; in fact everything that he really needs. A great many things he does not need may be taken in also, for the official's pay is meagre and he loves to gaze on the portraits of American worthies as depicted on our national currency. It is well to caution the traveller that he must, if requested, state to the proper authorities his name and profession."

In due time the train rolled out of Nuevo Laredo, and our friends were contemplating the scenery of northern Mexico. For the first fifty

or sixty miles there was not much to contemplate, as the country consists of a plain covered with chaparral, and one mile of it is very much like any other. "A little of it goes a great ways," said Frank to Fred; and after a brief study of the cactus and mesquite landscape, the youths turned to their books or to observations upon the train and the passengers accompanying them.

As stated elsewhere, the National Railway is of three feet gauge, and therefore it was to be expected that the cars would be narrow and possibly inconvenient. But our friends found them roomy and comfortable; there was a parlor-car with reclining-chairs, for which an extra price was charged, and sleeping-cars all the way from Laredo to the City of Mexico, just as sleeping-cars are run on other lines.



WATCHING THE FRONTIER.

The passengers included several tourists like themselves, a few railway agents, some mysterious characters who could not be "placed," and six or eight men of business who cared nothing for scenery, politics, or anything else pertaining to Mexico, except the facilities for commerce and the duties upon imported goods. One of these individuals loudly denounced the protective duties in the Mexican tariff system, and declared that the country would never amount to anything until it abolished its restrictions

upon importations and opened its markets to the world. In the discussion that followed, the fact was revealed that he was a citizen of the United States, and interested in manufactures; concerning the tariff system of his own country, he favored protection, as it encouraged American industries and was the only system under which the people who worked with their hands could make a living. Frank wanted to



LANDSCAPE NEAR THE BORDER.

ask him why he favored one system for Mexico and another for the United States, but he modestly refrained from so doing; another passenger asked the question, but it remained unanswered; and to this day the youth has not been enlightened on the subject.

Among the passengers were several Mexicans, whose nationality was readily shown by their swarthy complexions and the peculiarities of their dress. They were the sembrero, or wide-brimmed hat of the country, but it may here be remarked that of late years the American hat has come somewhat into fashion and is less unpopular than of yore. Some of them proved to be naturalized Mexicans rather than native born; one in particular was a jolly Irishman who had been thirty years in Mexico, spoke its language fluently, and had been so browned by the sun that his complexion was fully up to the national standard. He joined Doctor Bronson and the youths in conversation, and cordially invited them to make a break in their journey and visit his hacienda.

He had a Mexican wife, and was the owner of a large area of land, on which he had so many cattle that he was unable to give their number within two or three hundred. He said he came from Ireland to the United States, drifted down to the frontier of Mexico just before the American Civil War, and in order to avoid being mixed up in the troubles, he crossed the boundary and sought shelter under a neutral flag.

There he had remained and prospered to such an extent that he had no wish to return either to the United States or his native land.

Fred made note of the dress of a haciendado, or ranch-owner, who was seated near him and might fairly be taken as the type of the dandy horseman of Mexico. The man wore a suit of dark blue or blue-black cloth, the suit consisting of two garments, a jacket and trousers. The jacket was short and well fitted, and it was ornamented with large buttons of silver; the trousers were close-fitting, and on the outer seams were rows of silver buttons smaller than those that decorated the jacket. The feet were incased in top-boots with high



MEXICAN MULETEER.

heels, and each boot carried a large spur of solid silver; the spur is a cruel weapon, with long rowels upon wheels as large as a half-dollar. The



A SOLID SILVER SPUR.

man's jacket was open in front, displaying a frilled or ruffled shirt, white as snow, and connected to the trousers at the waist by a faja, or sash, whose predominating color was red. The Mexicans are fond of gaudy colors, and the taste for them runs through all classes of the population. Though it was not worn in the railway-train, we must not forget the serape, or Mexican blanket, which is carried over the shoulders or on the arm, or in the case of a mounted horseman, is thrown across the front of the saddle.

The sombrero of this haciendado was of a light gray color; the head-covering may be of almost any color under the sun, but the preference is

nearly always for something bright. The crown may be rounded off like the large end of an egg, or form a truncated cone, like the crown of the hat worn by the Puritans, and it is encircled by three or four turns of silver or gold cord. Gold or silver trimming around the brim completes the ornamentation; altogether there is considerable weight to the Mexican sombrero, but nobody seems to mind it.

At the stations where the train halted from time to time, the travellers obtained glimpses of men and things peculiar to the country. Horsemen were in goodly proportion, as no Mexican who can afford a horse will be without one; and sometimes when he cannot afford it, he manages to possess the steed of his desires by the simple process of stealing it. Wagons and pack-trains were not infrequent; and one of the picturesque spectacles in connection with them was the muleteers, or mule-drivers, who were almost invariably barefooted, wore but little clothing, and carried the ropes and other apparatus needed for their professions in bags slung over their shoulders or hung at their sides. Some of the stations were frail buildings of wood, while others were of the adobe, or sun-dried brick, the favorite construction material of Mexico and the countries that once belonged to her.

Fred was interested in the adobe, and learned on inquiry that its use is a matter of great antiquity. The Mexican Indians made sun-dried bricks long before Columbus discovered America, and it should be borne in mind that some of the pyramids of Egypt, which have stood for thousands of years, were of the same material. The bricks that the Egyptians compelled the Israelites to make without straw were dried in the sun, and therefore identical with the Mexican adobe.

Fred asked his Irish-Mexican acquaintance how an adobe house was made, and the gentleman kindly explained.

"An adobe house," said he, "costs very little, and it is warmer in winter and cooler in summer than either wood or brick. It will last as long as anybody can want it to. I know some adobe houses that are said to be a hundred years old, and many that have stood twenty or thirty years without any sign of decaying.

"Adobe bricks are made of one-third clay-dust and two-thirds fine sand, and it takes four men to form a brick-making team. One mixes the mass with a little water so as to form it into a heavy mortar, two men carry it in a hand-barrow to the place where the bricks are to be spread out and dried, and the fourth man shapes the bricks in the mould. After drying somewhat while flat on the ground, which has been previously levelled and made smooth as a floor, the adobes are set up edge-

wise, and stay so until the sun finishes them completely. They are laid in mortar made from mud; and when a wall is two feet high, the work stops for a week, to allow the mortar to be firmly set before putting more pressure on it. When a week has passed, another height of two feet may be laid, and so the work goes on until the building is finished. Then it must wait a week before the roof is put on. You see, it takes time for building an adobe house; but time is of no consequence in the land of mañana."

"What is the meaning of mañana?" one of the youths asked.

"It means 'to-morrow,'" was the reply; "and as you go through Mexico you will hear the word in constant use. Ask a Mexican when he will do anything—pay a bill, return the horse he borrowed, build a sheeppen or a corral for his cattle, get married, buy a new saddle, in fact do



A GROUP OF ADOBE HOUSES.

anything that can be done—his answer is, 'Mañana.' Mexico is the land of mañana, and the habit of procrastination is exasperating to a man of any other nationality. You'll get used to it in time, but it takes a long while to do so. It wouldn't be so bad if the man literally meant what he said, and when to-morrow comes would do as he promised. The word is used like the 'coming, sir' of the English waiter, or the 'tout de suite' of the French one, and means 'next week,' or 'next year,' or more properly an indefinite time in the future."

"There's another word, or rather two words, where the meaning is identical with mañana, and the use the same. You'll hear them often in Mexico, but more frequently in Central America and farther south."

"What are they?"

"Poco tiempo," was the reply; "the literal meaning is in a little while,' but the practical usage is the same as that of mañana. Then there's another lesson in language you may have gratis; ask a man any question



THE LAND OF MANANA.

for which he does not know the answer, and his response will be, 'Quien sabe?' (who knows?). It is less exasperating than the other words I've told you of, as it is simply a form of saying 'I don't know.'"

The youths made proper acknowledgment for the instruction they had received, and took good care to remember it.

The dreary plain ceased at length, and the mountains began to be visible. About seventy-five miles from Laredo Frank's attention was called to a mesa, or high table-land, a little beyond the station of Lampasas. It is a mountain which spreads out flat like a table, and the area on the top is said to be not far from 80,000 acres; its sides are 1400 feet high, and so nearly perpendicular that it is impossible to ascend them, except in a few places. There is a path three miles long leading to the summit; it is impassable for wheeled vehicles, and can only be traversed by sure-footed

quadrupeds or men. It is called the *Mesa de los Cartujanos* (Carthusians), a tribe of Indians who probably derived their name from a Benedictine monastery which was once established there. The mesa is well watered, and its surface is divided beween forest and grass-land in such proportion as to make it an excellent pasture. No fences are needed beyond a single gate at the top of the path to keep the cattle from straying into the country below, unless we include the division fences for the separation of herds.

From Lampasas to Monterey the country improved greatly, and for a hundred miles or so the train wound through a valley where the scenery was almost constantly picturesque, and the land showed signs of agriculture and stock-raising. Near one of the stations the boys caught sight of a threshing-floor, where horses were driven around in a circle to tread out



THE THRESHING-FLOOR.

the grain with their hoofs. This is the primitive mode of threshing, to which reference is made in the Bible; it is still in use in various parts of southern Europe and also in Asia and northern Africa. The American invasion of Mexico will doubtless introduce the threshing-machine; in

fact the machine has already been introduced, and many of the raisers of wheat on a large scale have adopted it.

In the cultivated districts many fruit-trees were seen, and Fred made note of the fact that the orchards produced figs, pomegranates, lemons, oranges, aguacates, and chirimoyas, in addition to most of the fruits of the temperate zones. He learned that the State of Nuevo Leon, which they were then traversing, produced tobacco, sugar, Indian-corn, wheat, Mexican hemp, and similar things, and contained a million dollars' worth of cattle and horses. It elevation is from 1000 to 2300 feet above the level of the sea, and its climate ranks as temperate or semi-tropical.

Lampasas is said to be a great resort for smugglers, who carry on a regular business, with comparatively little disturbance by the authorities. Probably the railway has interfered with them, and they can hardly be expected to look upon it with a kindly eye. About thirty miles beyond Lampasas is Bustamente, a town founded two hundred years ago by the Spaniards as a frontier post against the Indians of the north, and now the seat of a manufacturing interest that promises to increase. The cloth of Bustamente has a high reputation throughout Mexico, and the town contains a tribe of Indians descended from the Tlascalans, who helped Cortez to conquer the Aztecs and make Guatemozin a prisoner.

As the train approached Monterey, about four o'clock in the afternoon, a mountain shaped like a saddle was pointed out on the left of the line. "What do you suppose is the name of that mountain?" said the gentleman who called attention to it, while the eyes of Frank and Fred were turned in its direction.

"I don't know, I'm sure," said Fred; "perhaps they named it for its shape, and call it Saddle Mountain."

"That's exactly what it is," was the reply; "it is called La Silla, or The Saddle, and is a prominent landmark around Monterey."

Then the gentleman pointed to a mountain on the right which he said was called *Cerro de la Mitra* (Mountain of the Mitre), from its resemblance to the mitre worn by a bishop. Then between them, and farther away, he pointed out the chain of the Sierras, and the youths realized that they were in a region of mountains.

The train wound through a cleft in the hills, and came to a halt at the station of Monterey, a mile and a half from the city. It is proper to remark that most of the towns and cities of Mexico require the railways to stop outside the walls or limits, but for what especial reason, unless to give occupation to the inhabitants in transporting passengers, baggage, and freight, our young friends were unable to ascertain. The custom is

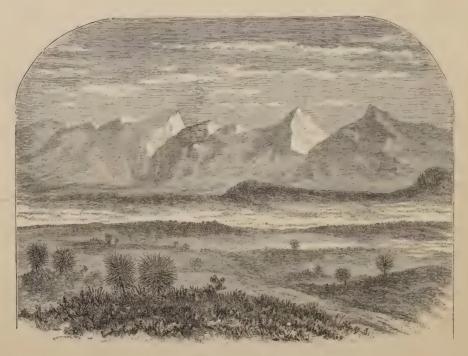
Spanish as well as Mexican, as the traveller in Spain will vividly remember.

There is a good supply of cabs and omnibuses at the station, and there is a horse-railway connecting the city and the railway-station, so that travellers have a choice of conveyances. The horse-railway was built by an American, who obtained a concession from the Government and thought he was making a wonderfully profitable investment. But the local authorities hampered him with many restrictions; they compelled him to carry a policeman on every car, and the policeman generally took the side of those who did not pay their fare. It was fashionable to ride in the cars, but not fashionable to pay, or, at any rate, it was optional to pay or not.



SADDLE MOUNTAIN, MONTEREY.

A good many foreigners who have settled in Mexico complain that their enterprises are seriously interfered with by the authorities, national, State, and local. Every town and village, according to the old Spanish law and custom, has the right to levy tolls or taxes on everything that passes through it, and on all business conducted within its limits. Then the State or district can levy a tax, and the national government comes in for a levy of its own in addition. The result is that every enterprise is liable to be "taxed to death," and many a man who has carried money to Mexico to engage in what promised to be a profitable business has left it behind him in the hands of the various authorities. Taxes, forced loans, and various expenses that can never be foreseen swallow up all the profits and altogether too often the original investment. Very few silvermines in Mexico pay dividends to their stockholders, and the few that are worth owning have no stock for sale. The American saying that "it



VIEW OF THE SIERRAS.

takes a gold-mine to work a silver-mine" is as true of Mexico as of any other country.

Our friends went to the Hotel Hidalgo, and found it endurable; it had been recommended by one of their fellow-passengers on the train, who showed his good faith in his recommendation by accompanying them thither. Immediately after securing rooms and completing arrangements for their stay, the party started for a drive around the city, which boasts an age of more than three hundred years, having been founded in 1560, though it did not receive its present name until 1596.

Monterey means "king mountain," or "mountain of the king," and the name of the city was given in honor of Don Gaspar de Zuñiga, Conde de Monterey, who was Viceroy of Mexico in 1596. The name given to the settlement in 1560 was Santa Lucia; a little stream which crosses the city from west to east preserves the original appellation, but comparatively few of the inhabitants are aware of its origin.

CHAPTER III.

THE AMERICAN INVASION OF TO-DAY,—MONTEREY AS A HEALTH RESORT; ITS SITE AND SURROUNDINGS.—THE CATHEDRAL AND OTHER PUBLIC BUILDINGS.—CAPTURE OF MONTEREY BY GENERAL TAYLOR.—SHORT HISTORY OF THE MEXICAN WAR.—FROM CORPUS CHRISTI TO MONTEREY.—THE ATTACK ON THE CITY.—CAPTURE OF THE FORTS AND THE BISHOP'S PALACE.—FRANK RECITES A POEM.—LIEUT. U. S. GRANT AND WHAT HE DID AT MONTEREY.—A STORY ABOUT JEFFERSON DAVIS.—HOW JOHN PHENIX ESCAPED CASHIERING.—SIGHTS OF THE CITY.—THE MARKET-PLACE AND WHAT WAS SEEN THERE.—FRUITS, BIRDS, POTTERY, ETC.—IN A MONTEREY HOUSE.—A PALATIAL RESIDENCE.

THE first opportunity to see a Mexican city was afforded to our friends at Monterey, and they fully enjoyed it. Every walk along the streets and every drive in the city and its vicinity was full of interest, and there was little that escaped their observation. Being the most northern city of



VIEW OF MONTEREY.

Mexico, Monterey has been much invaded by Americans during the last decade, and many citizens of the United States are established there in various lines of business.

The city has been extensively advertised as a health resort, and considerable numbers of invalids have gone there; a fair proportion of them

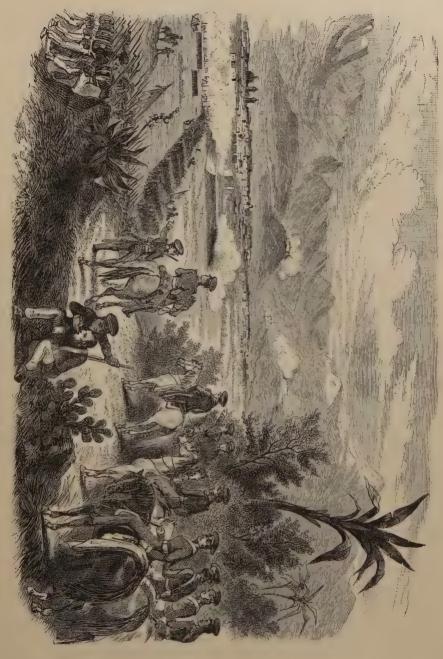
have breathed their last in Monterey or its neighborhood, but the same may be said of many other health resorts in different parts of the world. For the present, invalids would do well to think twice before going to Monterey or any other part of Mexico in the hope of recovering their health, as the accommodations for them are hardly such as they require.



THE PLAZA DE ZARAGOZA.

A Mexican hotel may do well enough for a vigorous man, but it is illsuited to one who should be shielded from draughts, needs to sit in front of a comfortable fire, and has a dread of damp walls and similar adversities. The cooking is suited to robust stomachs rather than to delicate ones, and the attendance leaves much to be desired.

Monterey is built in a plain surrounded by mountains, and the ground on which it stands is somewhat broken or undulating in places. It has a population of about forty thousand, and is said to be increasing every year, in consequence of the impulse which the opening of the railway has given it. Our friends visited the Ojo de Agua, a great spring that opens in the centre of the city, and furnishes a copious supply of water; then they went to the Plaza Mayor, a pretty garden, with an interesting fountain in its centre; then to the Plaza de Zaragoza; and then to the cathedral, which looks upon it, and has the Church of San Francisco as a near neighbor. The church is the oldest religious edifice in the city. It is said to have been founded in 1560, and though there is some obscurity about the exact date, it is pretty certain to owe its beginning to the six-



teenth century. But of the old structure only the foundations remain, the present building having been erected about 1730, and it has undergone alterations at various periods since that time.

The cathedral is quite modern. It was dedicated in 1833, and at the time of its dedication had been about thirty years in process of erection. The walls are very thick, and its constructors must have possessed the gift of foresight, and had in mind its possible uses for war purposes, as it was converted into a powder-magazine at the time of General Taylor's attack in 1846. Shot and shell fell thickly around it, but the massive walls preserved it from destruction or serious injury, and saved its contents from being blown up. The original site selected for the cathedral was at the north of the city, and work was begun upon it, but the place was abandoned for the present one. A fort was erected on the abandoned site, and it was one of the chief obstacles to the capture of the city by the Americans.

Frank and Fred were especially interested in the war history of Monterey; and as soon as the inspection of the Plaza Mayor and the edifices around it had been completed, they asked to be taken to the scene of the fighting between the American and Mexican armies. Their guide took them first to the bridge of the Purisima, in the north-eastern quarter of the city, where there was a sharp battle, in which the Mexicans successfully resisted the Americans, and then to the old citadel—the fort already mentioned. It is now in a ruinous condition, and is generally spoken of as "the Black Fort."

On the way to the citadel, Doctor Bronson tested the knowledge of the youths concerning the events which made Monterey's name so well known in the United States. In reply to his questions, Frank and Fred alternated with each other in telling the following, Frank being the first to speak:

"General Taylor's army landed at Corpus Christi, in Texas, and marched from there to Matamoras, on the Rio Grande, early in 1846. Before crossing the Rio Grande they fought two battles—that of Palo Alto on the 8th of May, and the battle of Resaca de la Palma on the following day. General Taylor defeated the Mexicans in both battles, though his army was much smaller than theirs, the Mexicans having about 6000 men and the Americans 3000. After capturing Matamoras he advanced into northern Mexico. On the Rio Grande he had been joined by a reinforcement of troops, and when he came in front of Monterey he had between six and seven thousand men."

"Yes," said Fred, "the historians say he had 6645 officers and men



"You have evidently been studying the History of the Mex-

ican War very carefully," the Doctor remarked, as the youths paused.

"We've tried to, certainly," responded Fred, "as we believe we ought to know what the relations have been between this country and ours, in order to understand intelligently what we see. If we study to-day the peaceful invasion of Mexico, we ought to know about the warlike one."

Doctor Bronson nodded assent to this view, and the story of the war was resumed.

"General Taylor came in sight of Monterey on September 20th," said Frank, "and immediately rode forward till he was within range of one of the forts. A cannon was fired upon the group of officers that surrounded



the general, and immediately the army was ordered to advance and form a camp opposite the city, but far enough away from the forts to be out of range of the cannon.

"The battle began the next morning, the 21st, the city being attacked on the west by a division commanded by General Worth, whose monument stands in front of Madison Square, in New York, and on the west by the rest of the army under General Taylor. The Americans had no artillery heavier than six-pounders, while the Mexicans had their forts filled with large cannon; and they had a strong force of cavalry, while the Americans had a very small one. The forts were attacked first, and one after the other they were taken, till the only remaining one outside the city was the Bishop's Palace, as it was called, though it was really a fort, as we shall see when we get to it.

"Partly by means of a cannon that was dragged up a hill which commanded the Bishop's Palace, and partly by an attack of the infantry, the place was captured, and our flag was over all the heights that overlooked the city. It had taken two days to accomplish this, and a great many of our soldiers had fallen, but the army had no idea of giving up the attack; and when they had possession of the heights, they felt as sure of the victory as though it was already won.

"On the morning of the 23d of September, the third day of the battle, a fire was opened on the city from the Bishop's Palace on the west, and from two forts on the east, and at the same time the troops on each side of the city began to force their way inside towards the Gran Plaza, in the centre. The Mexicans fought desperately, and swept the streets with such a fire of musketry that our men had to take shelter in the houses and cut their way from house to house towards the Gran Plaza. It was slow work, and when night came the troops had still two blocks to cut through before getting to the plaza. They were getting ready for work early the next morning when a flag of truce came from General Ampudia, and the city was surrendered."

"What was the loss of the Americans in the battle?" queried Doctor Bronson, as Frank paused.

"They lost 158 killed, and 368 wounded," answered Fred, "and the Mexican loss was said to be fully one thousand."

"And to what was the disparity of the losses attributed?"

"It was thought," said Fred, "at least so I read in the account published at that time, that the Western and South-western men who fought under General Taylor were better marksmen than the Mexicans. The Texas riflemen in particular were famous for their skill in shooting, and their weapons were better than those of their enemies."

"You've made a very good short history of the capture of Monterey," said the Doctor, "and must write it down for the benefit of your friends at home."

The youths followed this bit of practical advice, and we are permitted to publish their story.

By the time the talk about the war was ended the party had reached the citadel, which they visited with interest, and then proceeded to the Bishop's Palace, now occupied as a military barrack, and in a bad state of repair. While they stood looking down upon the city and the grassy and bushy slope of the hill, Frank recited the following piece of verse, which was written by Charles Fenno Hoffman shortly after the stirring events commemorated in the lines:

"We were not many—we who stood Before the iron sleet that day; Yet many a gallant spirit would Give half his years, if he but could Have been with us at Monterey.

"Now here, now there, the shot it hailed
In deadly drifts of fiery spray;
Yet not a single soldier quailed
When wounded comrades round them wailed
Their dying shouts at Monterey.

"And on, still on, our columns kept,
Through walls of flame, its withering way;
Where fell the dead, the living stept,
Still charging on the guns that swept
The slippery streets of Monterey.

"The foe himself recoiled aghast
When, striking where he strongest lay,
We swooped his flanking batteries past,
And, braving full their murderous blast,
Stormed home the towers of Monterey.

"Our banners on those turrets wave,
And there our evening bugles play,
Where orange-boughs above their grave
Keep green the memory of the brave
Who fought and fell at Monterey.

"We were not many—we who pressed
Beside the brave who fell that day;
But who of us hath not confessed
He'd rather share their warrior rest
Than not have been at Monterey?"

"There is one thing we must mention in our account of the battle," said Fred, as they were returning from the Bishop's Palace to the city.

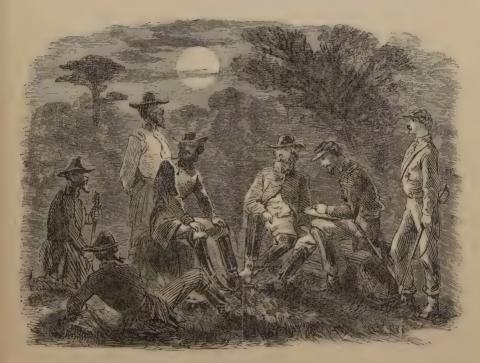
"What is that?" Frank asked.

"Why, we must say that there was a young officer here named U. S. Grant; he was a second lieutenant of the Fourth Infantry, and was one of

those who charged up the side of the hill to the Bishop's Palace. He afterwards became General Grant, whom all the world knows of, and whose name will be remembered in America for all time."

"I didn't think of that when I was talking about the battle," Frank answered, "but I remember it all now. And I have read in one of the books on Mexico that he was offered promotion for his conduct in the battle, but declined it because another man was promoted at the same time. In declining the offer he said, 'If Lieutenant —— deserves promotion I do not.'"

"And there's another thing that needs explanation," continued the youth, "and that is the uniform of the officers and soldiers of our army in



OFFICERS' UNIFORMS IN 1860.

the pictures of the battles in Mexico. It is quite unlike the uniform worn in the Civil War fifteen years later, and now in use."

"I will explain that," said the Doctor, and he did so in these words:

"After peace had been declared and our army returned from Mexico, the War Department realized that there were certain features of the uniform and equipment of the men that might be changed to advantage. No action was taken in the matter until Jefferson Davis was Secretary of War, between 1853 and 1857; and I will here remark that Jefferson Davis commanded a regiment of Mississippi Volunteers during the Mexican War, and fought in this very battle of Monterey we have just been talking about. Well, Mr. Davis sent a circular letter to the officers of the army, stating that changes were contemplated, and asking for suggestions from them, and the inducement was held out that those who suggested changes which were adopted would be liberally compensated.

"One of the circulars was received by Lieut. George H. Derby, who afterwards obtained considerable literary reputation as 'John Phenix.' Derby was a born humorist, and generally saw the ludicrous side of a subject before anything else. In a short time after receiving the circular he sent a variety of suggestions to the Department which were very funny, to say the least.

"He designed a hat which, in addition to covering the head, could be used as a camp-kettle, a water-bucket, and a feed-bag for a horse, and with the design for the article, which was to be made of sheet-iron, there was a picture representing it applied to each of its proposed uses.

"Instead of the shoulder cross-belts, he proposed that the soldier should have a leather belt around his waist, and to this belt should be attached a stout hook with a shank six inches long, and the point of the hook standing outward from the man's back. On this hook the soldier could hang his knapsack or equipments when on the march. He could be harnessed by means of it so as to drag a wagon or a cannon; and in an assault on a fortress he could be made to drag a scaling-ladder up the walls by means of this hook. Derby also proposed that the officers should be provided with poles like rake-handles, ten or twelve feet long, with rings at one end, and if a soldier should try to run away in battle he could be dragged back to duty by means of the hook.

"Derby was skilful with the pencil, and he sent a sketch of a battle-field in which the various uses of the hook were depicted. To say that Jefferson Davis was angry when he read the letter is to put the case mildly; he turned red and blue with rage, and took the document to a cabinet meeting that was being held on the afternoon of the day he received Derby's communication. The members of the cabinet laughed over the suggestions and pictures, and when Davis declared he would have Derby cashiered for disrespect to the Secretary of War, they advised him to say nothing. 'If the story gets out,' said one of them, 'you'll be the laughing-stock of the country from one end to the other, and will never hear the



MOUNTAIN SCENE NEAR MONTEREY.

end of it. And, besides, there's some originality about the man, and he may yet send something that will be really useful.'

"Mr. Davis cooled down, and the story didn't come out until years afterwards. The result of the recommendations of various officers of the army was that the old 'bellows-top' cap disappeared, and so did other features of the soldier's uniform and equipment. That is why the picture of the battle of Monterey is so unlike that of any of the battles of the Civil War, so far as the uniforms of officers and men are concerned."

The youths had a hearty laugh over the story of Lieutenant Derby's suggestions. Frank thought they were too good to be lost, and he decided to write them down at the first opportunity.

On their return to the city the party visited the Alameda, which forms

a very pretty promenade and is well shaded with trees, though Frank thought it appeared in rather a neglected condition. Then they drove to the hot springs at Topo Chico, about three miles out from the city in a northerly direction, and indulged in the luxury of a hot bath in natural water. The manager of the establishment said that the baths had a temperature of 106 degrees Fahrenheit, and possessed a high reputation for



THE ALAMEDA, MONTEREY.

curing nervous, rheumatic, and other diseases. The arrangements for bathing were formerly very poor, but a new bath-house was erected in 1887, and resulted in a great increase of patronage.

Of course a visit was paid to the market-place, and the novelties of the spot received due attention. The most interesting features were the fruit and flower markets. Doctor Bronson told the youths that the Indians of Mexico had a passionate fondness for flowers long before the arrival of their Spanish conquerors, and it continues to the present time. There was a fine display of flowers, and the prices were so low that Frank and Fred regretted that they did not know some fair ones to whom they could send baskets and bouquets. Determined to do something by way of patronizing the flower-sellers, they bought a quantity of flowers and sent them to a hospital which their guide pointed out. "They may serve to cheer some poor invalid," said Frank, "and the market is so attractive that I want to encourage the trade."

The semi-tropical character of Monterey was shown by the fruits, which seemed to comprise the principal products of two zones, the tropi-

cal and the temperate. There were all the fruits named in the last chapter as growing in the region near Lampasas, together with three or four others. Monterey is situated 1800 feet above the level of the sea, so that it is cooler than other places in the same latitude but at a lower elevation. Some of the fruits sold in the market of the city were not grown in the immediate neighborhood, but in the lower regions to the eastward.

Fred called Frank's attention to the bird-sellers with their wares in large wooden cages, evidently of home construction. The canary seems to have spread pretty well over the world; his singing powers have made him welcome everywhere he goes, and our young friends were not at all surprised to find him in the market of Monterey. Several other varieties of singing-birds were displayed, and the prices which were asked for them seemed very low; but the Doctor whispered to the youths that if they bought anything in the market they should not offer more than a quarter



NATIVE POTTERY.

of what was demanded, and gradually advance their figures to a half or possibly three-fourths. In a country where time is of no value everybody who has anything to sell expects to haggle about the price.

Some of the pottery in the market was so good that the boys consulted Doctor Bronson as to the advisability of sending home a few specimens

of it. The Doctor checked their enthusiasm by reminding them that they were just then at the beginning of their journey, and it would be prudent to delay purchases until reaching the capital. A few jars and pots were selected and bargained for, more by way of practice in the language and



A SCENE IN THE MARKET.

customs than for any other purpose, and they were left with an American merchant, who undertook to ship them to New York. They were all of Indian workmanship, the best having come, so the dealer said, from Guadalajara. Mexican pottery deserves a higher rank among ceramics than it has hitherto enjoyed, and some of the handiwork of the descendants of the Aztecs would be worthy of admiration in any collection.

There were scores and scores of patient mules standing with drooping ears and waiting for their burdens to be removed. They were laden with everything that an inhabitant of Monterey could want to buy—milk, vegetables, fruits, fuel, hides, sugar, beans, wheat,

iron-work, in fact anything and everything that has a place in a market. Donkeys are the beasts of burden at Monterey, and almost in the same category belong the cargadores, or porters, who are licensed and numbered exactly like cabs or drays in an American city. These men are identical with the Turkish hamals; they carry heavy burdens with apparent ease, and it is no uncommon sight to see one of them slowly creeping along with a piano, an iron safe, or a barrel of wine on his back, or a lighter burden on his head in the same way that the negro carries it. A gentleman who was stopping at the hotel said he had known a cargador to transport a safe weighing six hundred pounds without any apparent suffering a distance of half a mile without stopping to rest.

But the donkeys and cargadores do not have a monopoly of the local carrying trade, as there are great numbers of carts drawn by oxen, that have come in from the country with loads of produce seeking a market. These carts are of rude construction, and their axles are rarely, if ever,



A COURT-YARD IN MONTEREY.

greased. They creak and groan in a manner that falls unpleasantly on the ear and often suggests that the vehicles are animated beings suffering beneath their burdens and endeavoring to make their grief known. And this reminds us of something which Fred remarked to Frank when the latter was wondering how the Mexicans could endure such a continued complaint of the axles of their carts.

"I've been thinking of the same thing," was the reply, "especially as the Mexicans are opprobriously termed 'greasers' by the people of Texas and the South-west generally. It's a sort of lucus à non lucendo,

wealthy S property o

A WINDOW IN MONTEREY.

that appellation of greaser, at least so far as their cart-axles are concerned."

After seeing the market, they strolled along some of the narrow streets, which appeared gloomy enough, with their long stretches of masonry, broken only here and there with a grated window or a balcony which seemed to be a part of a prison, so heavily was it barred with iron. Some of the larger and finer buildings have handsome windows, whose design was evidently brought from Old Spain, and in turn obtained from the Moors. Our friends were invited to a house which had formerly belonged to one of the

wealthy Spanish residents, but is now the property of an American merchant. Fred thus describes it:

"Like all the better class of houses in Monterey, this one is built in the form of a hollow square. This style of architecture was brought from Spain by the conquerors of the country, and it reminded us of houses in Damascus and other cities of the Oriental world. The square encloses a patio, or

court-yard, and the rooms of the lower story open on the patio; there is a colonnade surrounding the yard, and it is freely ornamented with tropical plants and flowers, so that you seem at first glance to have entered a conservatory. Vines climb around most of the columns of the colonnade, and in the centre is a well in which hangs, not the 'old oaken bucket' made famous in song, but an equally substantial bucket of leather. The water

drawn from the well is cool and sweet, and from the length of the rope it is evident that the excavation goes down to a great depth. Monterey is abundantly supplied with water, and in this respect as well as in the appearance of some of the interiors of the houses, it is entitled to be called the Damascus of Mexico.

"There is one house in Monterey, the residence of Don Patricio Milmo, which has a double-arched court-yard and gallery, and is most liberally supplied with plants and flowers, among which a botanist would enjoy himself for many hours, and an ordinary mortal with no scientific knowledge need not be far behind him. There are some very pretty marbles in the neighborhood of Monterey, and they have been liberally used in the ornamentation of this and other houses. Don Patricio is a wealthy banker, and the owner of an immense area of land in Nuevo Leon, including much of the building-ground in and around Monterey."



VIEW OF SIERRAS FROM BISHOP'S PALACE.

CHAPTER IV.

SOUTHWARD TO SALTILLO.—SANTA CATERINA.—REMARKABLE CAVES.—SCENERY OF THE SIERRA MADRE.—WAY—SIDE ATTRACTIONS.—THE CACTUS; ITS FLOWERS AND MANY VARIETIES.—SALTILLO.—THE ALAMEDA.—MEXICAN CURRENCY.—THE BATTLE—FIELD OF BUENA VISTA.—BY CARRIAGE AND SADDLE.—A NIGHT AT A HACIENDA.—MEXICAN COOKERY.—TORTILLAS, PUCHERO, FRIJOLES, TAMALES, AND OTHER EDIBLES.—HISTORY OF THE MEXICAN WAR FROM MONTERY TO BUENA VISTA.—5,000 AMERICANS DEFEAT 20,000 MEXICANS.—DESCRIPTION OF THE FIELD.—COTTON FACTORY AT SALTILLO.—COTTON MANUFACTURES IN MEXICO.

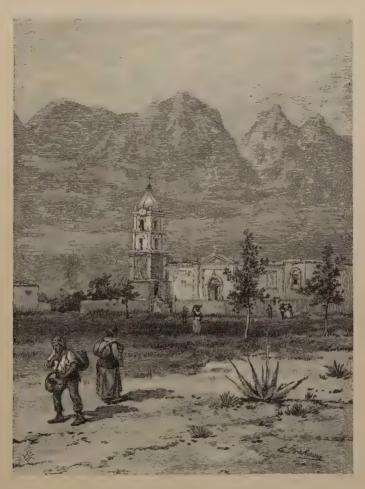
O'N resuming their journey through Mexico, Doctor Bronson and his young companions proceeded by the railway southward to Saltillo, sixty-seven miles from Monterey.

As they passed Santa Caterina, eight or ten miles beyond Monterey, one of their fellow-passengers told them that there were some interesting caves not very far from the station, and also near Garcia, thirteen miles farther on. A remarkable hole in the mountain near Santa Caterina was pointed out by the same gentleman, but in spite of his voluble account of the attractive features of a journey there, they did not consent to stop for the excursion. They also decided to allow the caves of Garcia to take care of themselves, much to the disappointment of their informant.

The beauty of the scenery along the railway, almost from the very moment of leaving Monterey, kept their eyes busy on both sides of the train. The railway for some distance follows the San Juan Valley, which diminishes in width as it ascends. The labored puffing of the locomotive told that the grade was a steep one, and it was evident that the engine was exerting all its powers. On most trains two locomotives are required, and an extra one is always added unless the number of carriages is small and their cargoes are light.

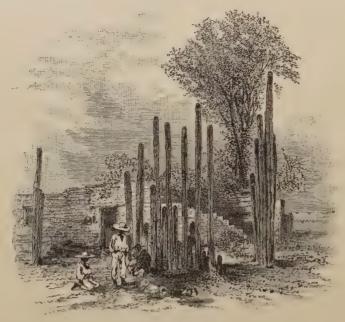
The scenery of the Sierra Madre is remarkably fine, and surpassed by that of very few railway routes in the world. Frank compared it to that of the Brenner or Semmering passes of the Alps, and Fred said he was reminded of the Blue Mountains in Australia, and the route traversed by the railway between Colombo and Kandy, in Ceylon. But they agreed that it

differed in some respects from all these routes, and had a beauty and grandeur of its own, just as did each of the places they had mentioned. On each side of the valley the mountains rose very steeply, and in many places they were nearly, if not quite, perpendicular. The rocks were of various shades, in which red had a prominent place, and on the steepest part of the slopes there was no place where vegetation could cling.



SANTA CATERINA, NEAR MONTEREY.

The best of the scenery was in the neighborhood of Garcia; beyond that point it became less grand, as the mountains were farther away in the widening valley, and the steep cliffs were less numerous. But the ascent was steady, and brought the train to the plateau and to a much higher elevation than that of Monterey. Monterey, as before stated, is 1800 feet above sea-level; Saltillo is at an elevation of 5200 feet, and consequently the railway ascends 3400 feet in passing from the former to the latter city.



THE ORGAN CACTUS.

The old route of the diligence before the railway was built afforded an exciting ride from San Gregario to Rinconada, as the descent was very rapid and the coach went down the incline with great rapidity. At one turn in the road there was a point where a misstep would have sent the whole conveyance down a precipitous slope of a thousand feet into the valley below. A thoughtful American who travelled that route years ago regarded the possibilities of such a slide, and estimated that the diligence, passengers and all, would be worth not more than nineteen cents a bushel after making the descent into the yawning gulf.

Frank and Fred wished they could gather some of the bright cactusflowers which abounded along the route. There are many varieties of cactus in Mexico; in fact the country may be said to be the land of the cacti. Botanists have described more than sixty species; they vary in height and size from the little plant hardly larger than a spray of clover up to the gigantic growths that rise more than thirty feet above the ground. The flowers run from pure white to a deep scarlet and purple, and some of the flowers are of great beauty. A peculiarity of the cactus is that it thrives best in poor soils, and on a great part of the ground where it grows few other vegetable products could maintain an existence. The largest of the cactus family is scientifically known as the Candelabrum, but the Mexicans call it the Organo, or organ; it grows in straight hexagonal columns, and when many of these columns are clustered together it bears quite a resemblance to a church organ with its pipes. One variety of cactus nourishes the cochineal insect; another is used for hedges, and owing to the sharp spines for which the plant is noted, it forms an impervious barrier to man or quadruped. The cactus generally has inside its flower a mass of edible substance, and in some localities this cactusfruit is collected and sold in the markets.

The cactus plant is not wholly inedible, as the donkeys of Mexico feed on some of them, and the goat will also make a meal of the leaves and stalks. But this is not to be wondered at when it is borne in mind that

the goat is popularly credited with dining upon tomato-cans, scraps of tin, old boots, newspapers, umbrellas, and other articles not ordinarily included among esculents. Of late years the cactus has been found useful for paper-making, and thousands of tons of it are annually converted into paper fibre.

A little past eight o'clock in the evening the train rolled into Saltillo, a city containing from fifteen to twenty thousand inhabitants, the capital of the State of Cohahuila, and for



VARIETIES OF CACTUS.

some years the terminus of the National Railway. There are several cotton factories at Saltillo or in its immediate vicinity, and the place boasts of its serapes. Evidently the boast is justified, as the serapes of Saltillo have a reputation all through northern Mexico. Our friends improved the opportunity to provide themselves with these needed articles of Mexican travel, and through the rest of their journey they carried their souvenirs of Saltillo and were well satisfied with them.

They had been advised to go to the Hotel Tomasichi, but with the condition that they must not expect anything remarkable in the way of a hotel.

The Doctor secured a carriage which was so rickety that it threatened dissolution before reaching the Plaza Mayor, where the hotel is situated, but by good-fortune it held together and landed them safely. The proprietor of the hotel told them that there was only one good carriage in the city, and if they wanted it for the next day it would be well to order it at once.



IN THE SAN JUAN VALLEY.

It belonged to Señor Sada, the owner of the diligence that would take them to Jaral, where it connected with the trains on the International Railway. The advice was taken, and the one good carriage of Saltillo was ordered for the next day's driving in and around the city. Six reals, or seventy-five cents, an hour was the price of the vehicle, with a gratification to the driver.

By this time Frank and Fred were able to make all their financial calculations in the currency of the country. Here is the list of values which they had noted down and committed to memory:

"The peso, or dollar, is divided into eight reals or reales, of the value of $12\frac{1}{2}$ cents each. A medio real is $6\frac{1}{4}$ cents, a cuartillo is 3 cents, and a tlaco is $1\frac{1}{2}$ cents; 2 reals make a peseta (25 cents), and 4 reals a toston

(50 cents). Values are reckoned in centavos (100 centavos make 1 peso), reals, or pesos until large sums are reached, when they are counted in gold. Of gold coins there are the escudito de oro, \$1; escudo de oro, \$2; pistola, \$4; media onza de oro, \$8; and onza de oro (gold ounce), \$16."

American currency can be used without difficulty in the large cities, but not elsewhere. Notes of the Banco Nacional and the Bank of London, Mexico, and South America can be carried in place of silver, which is inconveniently heavy; but our friends were advised not to rely upon bank-notes of any kind away from the lines of railway.

Doctor Bronson told the youths that a metric system of coinage was established some years ago, but the common people were prejudiced



A SOLID CITIZEN.

against it, and it had made comparatively little progress. Half and quarter dollars are never spoken of as fifty and twenty-five centavos, but as quatro reals or dos reals.

We will return to Saltillo, where we left our friends while we made an excursion among Mexican currency values. Their supper was a composite of Mexican and Italian cookery, Tomasichi being an Italian and his cook a native of Mexico. The chief had instructed the subordinate in the ways

of the kitchens of Rome and Naples, but not sufficiently to drive out the ideas of the land of the Aztecs. Stimulated by curiosity and also by a good appetite, the Doctor and his nephews made an excellent meal, or at least it was good enough to make them wish to taste a dinner entirely Mexican in character. We will see later on how they succeeded in their experiment.

The next morning they started in good season to inspect the city and its surroundings. They found the Alameda much prettier than that of Monterey, and some travellers have pronounced it the most attractive one to be found in Mexico. The inhabitants are deservedly proud of it. It is a popular resort at all hours, and especially in the evening, when everybody goes out for a promenade. The Plaza Mayor is also an attractive spot, and the youths wished to make a sketch of it from the side opposite the cathedral, but decided not to take the time to do so, as a photograph would answer their purpose.

The general features of Saltillo are much like those of Monterey, and consequently a detailed description of them is unnecessary.

Before starting on the round of sight-seeing, Doctor Bronson made inquiries concerning a visit to the battle-field of Buena Vista, which is some ten miles south of Saltillo. The inquiries resulted in an arrangement to see the spot made famous in the history of the Mexican War, where 5000 Americans put 20,000 Mexicans to flight.

The battle-field lies two or three miles south of the hacienda of Buena Vista, and the road from Saltillo rises nearly a thousand feet before reaching that place; consequently a journey thither must be done at a slow pace, and it was decided to take two days, or rather a night and part of two days, for the excursion.

Early in the afternoon the party started from Saltillo for the hacienda of Buena Vista, which they reached before nightfall. The youths were happy at the prospect of passing a night in a hacienda, and obtaining a glimpse of rural Mexican life.

The building where they were received was in the form of a hollow square, like the houses of Monterey, already described. The entrance was sufficiently broad to permit the admission of vehicles, and the carriage was driven inside before the travellers alighted. According to Mexican custom, a mozo, or servant, had been sent in advance to give notice of the advent of the strangers and have the house in readiness. The visitors were shown to rooms on the lower floor: the Doctor was assigned to a room by himself, while the boys were lodged together in a large room very meagrely furnished. The beds were straw-filled mattresses, laid

upon strips of rawhide stretched tightly across a frame, and the boys pronounced it an excellent substitute for some of the "patent spring mattresses" which are sold in American cities. The linen was scrupulously clean, which is not always the case in Mexico, but the supply of blankets was so light that it was evident the travellers were expected to make use of their serapes to keep off the chill of the night air.

They did not stay long inside the room, as they were anxious to see the surroundings of the place. So they wandered about, their first visit being to the stable, which they found commodious enough for the most fastidious horse in the world. "I have heard," said Fred, "that the people of this country are more particular about their horses than about themselves; a Mexican will take good care of his horse, but leave his wife and children to go hungry and half clothed."

"To judge by the difference between the rooms of the hacienda and the stable," responded Frank, "the statement seems to be well founded.



ON THE ROAD TO BUENA VISTA.

The stable is certainly better ventilated, and the horses have no reason to complain of their quarters. A Mexican depends so much on his horse that he ought from very selfishness to be very careful of him."

From the stable they wandered to the kitchen, where three or four native women were at work preparing the meal which the strangers were to eat.

The first thing to attract Frank's attention was a woman kneeling on the floor over a flat stone raised at one end, on which she was rolling some dough into very thin sheets. "That must be a tortilla-maker," said Frank; "we have had tortillas several times since we came into the country, but this is the first good chance I've had to see them made."

From his observation at this kitchen, and from subsequent informa-



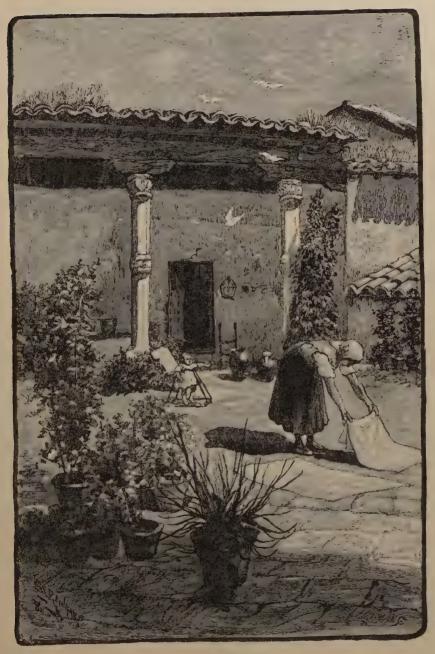
A SERVANT AT THE HACIENDA.

tion, the youth made the following note:

"Tortillas, or cakes, are made from corn-meal, which is ground by hand on a flat stone called a metate, a word of Aztec origin. The corn is soaked in lime-water till the hull can be separated from it, and then it is pounded and rolled upon the metate until it is ground into meal. In this work the woman uses a cylinder of stone something like the American rolling-pin, or very often she uses a flat or slightly rounded stone, with which she pounds and twists for hours. When the meal is sufficiently ground a little water is added, and it is worked into dough; the dough is then rolled or patted in the hand until it is almost as thin as a knife-blade and formed into circular cakes. The cakes

are baked on an iron *comal*, or griddle, which has been previously held over the fire until it is so hot that the cooking is done in a few moments. They are not allowed to brown, and are best when served hot. They are generally without salt or other seasoning, and are very tasteless at first to a stranger; but after one has become accustomed to tortillas he prefers them to any other kind of corn-cake."

The equipment of the kitchen was exceedingly simple, and the youths wondered how a French cook would get along with none but Mexican utensils to get up a meal with. The stove, or cooking range, consisted simply of a wall or bank of solid adobe about two feet high, and of the same width; this bank was built up against one side of the kitchen, which was ten or twelve feet square, and it extended the whole length of that side. There were depressions in the bank, in which small fires of char-



NEAR THE KITCHEN.

coal or wood were burning; on these fires the pots, pans, and griddles were placed, and the process of cooking went on. There was no chimney, the smoke escaping, or being supposed to escape, through an opening in the roof directly over the cooking range.

But the kitchen of the common people is less elaborate than this. It consists simply of a mound of clay, perhaps a foot in height and a yard in



MAKING TORTILLAS.

diameter, and depressed in the centre. Little fires in this depression furnish the heat for cooking the food placed in the pots and kettles, which are of common unglazed earthen-ware. The cook sits or squats on the floor close by this primitive range, while the mistress of the kitchen previously described stands, and can walk about at will without the trouble of rising.

In some parts of Mexico the cooking is done out-of-doors. This is particularly the case in the southern portion, and in the season of rains the

weather often reduces culinary operations to a very limited quantity. The more rain the less dinner, unless the food is eaten raw; but as it consists largely of fruits, the inconvenience is less serious than it might be otherwise.

When our young friends went to dinner they found a repast that was entirely Mexican in character. After it was over they made notes of what they had seen and eaten, and this was the result:

"We had tortillas, of course, and very good they were. The dinner began with a soup, which was so good that we asked how it was made, as



A PRIMITIVE KITCHEN.

we thought it might be tried by some of our cooks at home. Here is what they told us:

"'We start this soup with a chicken broth just as chicken broth is made anywhere else. Then we take the meat of the chicken, the white part only, after it has been boiled very tender, and pick it into little bits of shreds. We take some pounded almonds, the yolks of hard-boiled eggs, a little bread which has been soaked in milk, a little spice of some

kind, and plenty of pepper, and we mix the whole up together till it forms a hard paste. We make this paste into little balls and drop them into the soup when it is boiling hot and just before it is brought to the table.'

"If you want a good soup and a new one just try this. You may not hit the seasoning the first time, but when you do you'll find you've something worth eating.

"After the soup we had a puchero, which is said to be a very popular dish with the Mexicans, but we were not particularly fond of it. They begin it by boiling mutton to make a broth, and then they throw in every sort of garden vegetable cut in small pieces—apples, pears, squashes, tomatoes, green corn, onions, potatoes, carrots, parsnips, red or green peppers, in fact any and everything from the garden that is edible. There is so much pepper in the mess that it burns your mouth like an East Indian curry, but it is said to be good for the stomach and climate. They tell us we'll like it after a while; and perhaps we shall, but we certainly don't now. It's a good deal like the down East stew, with the addition of the hashed peppers and tree-fruits.

"Next we had a tamal de casuella, which was translated into 'cornmeal pot-pie.' As nearly as we could make out, it is made by putting a mixture of scalded meal, flour, eggs, and melted lard into a broth in which chicken and pork have been boiled, so as to make a thin paste. Then make a mixture of the boiled pork and chicken hashed reasonably fine, along with red peppers and tomatoes, and cook them in lard. Next you spread the paste on the bottom and sides of a dish that has been well greased so as to prevent sticking, lay in your meat mixture, cover with more of the paste, and bake it gently but thoroughly. For a hungry man the dish ought to be very satisfying.

"Our dinner ended with frijoles, or beans; and we remark here that beans are the principal food of the Mexicans of the lower ranks of life, and are largely used by the middle and upper classes. The great majority of Mexicans eat them twice a day, and a dinner would be incomplete without them. The annual crop of these beans in Mexico must be something enormous, and its failure would be as bad as that of wheat in our Northern States, potatoes in Ireland, or codfish along the New England coast.

"They cook them in various ways, but the favorite form is in a stew. They are usually considered unwholesome if eaten on the day they are cooked; they are always prepared with pepper, either green or red, and the preparation is so hot with pepper that one seems to be eating

melted lead while partaking of frijoles á la Mexican. Peppers enter into nearly all the Mexican cookery; an American who does not like them told us that the proportions for a Mexican stew were one pound of meat, one quart of water, and one pound of hashed peppers. It is a common remark in Texas and Colorado that a wolf will not eat a dead Mexican because he is so impregnated with pepper that even the stomach of that voracious animal can't stand it."

The Mexican dinner proved a digestible one; at all events Frank and Fred slept soundly and were fully refreshed for the visit to the battle-field on the following day. Saddle-horses were in readiness as soon as



THE GUIDE ON THE BATTLE-FIELD.

breakfast was over, and the party made a good start. We will listen to Fred's account of the excursion:

"After the capture of Monterey, General Taylor remained for a while at that city, and then marched upon Saltillo, which he occupied without opposition. General Scott ordered the divisions of Worth and Twiggs to join him at Vera Cruz for the advance upon the City of Mexico, and this reduced Taylor's force to 5000 men, nearly all of them volunteers. The

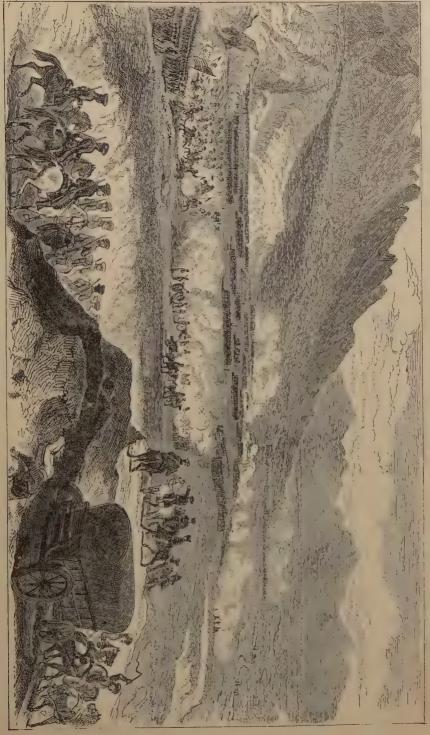
. Mexicans assembled a large army at San Luis Potosi, and advanced upon Saltillo with 20,000 men, expecting to drive the Americans out of the country.

"On the 22d of February, 1847—Washington's birthday—General Taylor met them at Buena Vista, or rather at the pass of La Angostura (the narrows), three miles south of the hacienda which gives the name to the battle. He occupied a position where he had great advantage, as a single battery of artillery protected the entire front, while the flanks were defended by steep gullies and ravines that the Mexicans could not hope to pass, and by the mountains that rose on the east to a height of 2000 feet.

"There is a plateau to the east which Santa Anna, the Mexican commander, tried to reach, as by gaining it he would be able to turn the pass where the Americans were posted. Some of his troops advanced to it during the afternoon of the 22d, but were driven back by the Americans; during the night the Mexican army gained the plateau, and the Americans then changed their position to the plain at the base, but continuing to hold the entrance of the pass.

"On the morning of the 23d the fighting began in full earnest, the Mexicans attacking in three heavy columns, which were directed on the American left. The American line was broken on that side, but the centre and right held their ground and drove the enemy back. Then the Americans attacked the Mexican infantry on the right and drove it back. As a last move, Santa Anna formed his whole force into a single column, which drove the Americans back for some distance, until the Mexicans were checked by the artillery. In this last part of the battle, when the cause of the Americans seemed lost, General Taylor gave the celebrated order, which has passed into history, 'Give them a little more grape, Captain Bragg.' Captain Bragg's battery of artillery was stationed on one of the little mounds or hillocks at the entrance of the defile, and from that point he threw an iron hail among the advancing Mexicans that drove them into disorder and flight.

"The battle lasted all day, and when night came the two armies occupied very nearly the same positions they held in the morning. The men slept where they were, and General Taylor was uncertain whether the battle would be resumed the next morning or not. When morning came it was seen that the Mexican army had fled, and the whole ground where they were at sunset was deserted. About 20,000 men had been beaten by less than 5000. Their losses were placed at 2000, while that of the Americans was 746, or about one-sixth their entire number. Gen. Lew. Wallace, in writing about the battle, says that by every rule of scientific



warfare the Americans were beaten oftener than there were hours in the day, but they did not know it; they rallied and fought, and rallied and fought again, till they finally 'wrung victory from the hands of assured defeat.'

"We spent two or three hours on the battle-field, visiting all the points of interest and listening to the story as it was told by our guide, an intelligent Mexican who was born in the vicinity, and has latterly made it his business to show strangers over the ground. He said there had been very few changes since the battle. The public road runs straight through the battle-field, and it is easy to understand the positions of the opposing



BOLL OF MEXICAN COTTON PLANT.

armies. One thing we understood, after seeing the ground, which we did not comprehend before: we had wondered why the Mexicans made so little use of their cavalry, of which they had 4000, and the Mexican horsemen are among the best in the world. When we saw how the ground is cut up with barraneas, or deep ravines, making it impossible for companies and regiments of mounted men to preserve their formation, we did not wonder any more.

"We returned to the hacienda in time for the mid-day meal, and in the afternoon went back to Saltillo. The journey to Saltillo was quickly made, as the road descends a good deal, and the horses went along at an excellent pace."

The rest of the day was spent in sight-seeing about Saltillo, including visits to some of the cotton and other factories, for which the place is famed. The machinery in the cotton factories is of foreign make—some of it from England and some from the United States. The cloth made there is of ordinary quality, and sells for a price that ought to give a fine profit to the owners of the establishment. Frank asked about the wages of the laborers in the mills, and found that they received from thirty to fifty cents a day for twelve or fourteen hours' work, according to their skill and the amount of labor they performed.

It is estimated that about 30,000,000 pounds, or 60,000 bales, of cotton are annually converted into cloth in Mexico. Most of the raw cotton is grown in the country; and what with the cultivation of the product and its manufacture into textiles, it is thought that 50,000 families are supported by the cotton industry. Where the mills are carefully managed they are profitable, and make a liberal return for the investment of capital.



PICKING COTTON.

CHAPTER V.

FROM SALTILLO TO JARAL.—A JOURNEY BY DILIGENCE.—PECULIARITIES OF DILIGENCE TRAVEL.—BRIGANDAGE; HOW THE GOVERNMENT SUPPRESSED IT.—ROBBERS TURNED INTO SOLDIERS.—STORIES OF BRIGANDS AND THEIR WORK; THEIR TREATMENT OF PRISONERS.—A CASE OF POLITENESS.—DINNER AT A WAY-SIDE INN.—CHILE CON CARNE.—DESCRIPTION OF CHIHUAHUA.—THE SANTA EULALIA MINES; ROMANTIC STORY OF THEIR DISCOVERY.—TORREON AND LERDO.—COTTON IN TRANSIT.—STATISTICS OF COTTON IN MEXICO.—FRESNILLO.—CALERA.—A BAD BREAKFAST.—ARRIVAL AT ZACATECAS.—LODGED IN AN OLD CONVENT.

BRIGHT and early the next morning our friends were ready for the journey to Jaral, where they were to connect with the train on the International Railway to carry them farther into Mexico. The distance is about forty miles, and was to be made by diligence, as the railway from Jaral to Saltillo was not then completed. They by no means regretted this, as a ride in one of these vehicles would be a novelty. The boys had read and heard a great deal about diligence travel in Mexico, and were more than willing to have an experience of it.

The start was made about seven o'clock in the morning, and there was a considerable crowd in the street to see them off. The arrival and departure of the diligence is an event in a Mexican town, though less so than it was before the days of the railway. It is probable that by the time this book is in the hands of the reader, the locomotive will have a finished track between Saltillo and Jaral, and the diligence will be known no more, except as a relic of past days. Those who have been jolted for hours and days in these heavily built carriages and over bad roads will give the heartiest kind of a welcome to the new order of things. The diligence will long continue on many of the side roads in Mexico, where it will not pay to build the railway, just as the stage-coach still exists in parts of the United States; but the great through routes have lost it for all time.

Immediately on their arrival at Saltillo, before going to Buena Vista, Doctor Bronson secured places for the trio in the diligence for Jaral; at the diligence offices all through Mexico, the rule of "first come first served" is followed as in a steamship or a Pullman car, and when the ve-



DEPARTURE OF THE DILIGENCE.

hicle is full the traveller whose place is unsecured must wait for the next journey, extra carriages being very rarely put on. If the weather is good, an outside seat (el pescante) is decidedly preferable, as it affords a much better view of the scenery along the route. American tourists generally take the chances of the weather, and select outside places; but the native, who does not care for the prospect, and desires nothing beyond making the journey as speedily as possible, is quite content with the inside (el interior).

Mexican roads are bad, and Mexican carriages are constructed with a view to withstanding all the shaking that a rough road can give. The

result is that at the end of a long journey the traveller feels very much as though he had been passed through a patent clothes-wringer or an improved threshing-machine. But no such fear troubled our friends, as the distance to Jaral was but forty-two miles, and the schedule time for the journey seven hours. The road was bad enough, it is true, but the youths heeded the advice of Doctor Bronson, and consoled themselves with the reflection that it might have been a great deal worse than it was.



ON THE ROAD.

They had read so much about brigandage in Mexico that the possibilities of an encounter with highwaymen naturally came into their minds. At the first opportunity they asked an American resident of Saltillo about the state of the country through which they were to pass, and the liability to an unpleasant encounter.

"There is hardly any danger on this line now," was the reply, "and it is a long time since a robbery was committed. There is less brigandage in Mexico to-day than there was a few years ago, but there is still too much of it to make travelling altogether agreeable. The Government has put down the system of robbery as much as possible, partly by capturing and killing the brigands, and partly by hiring them to quit the business and become respectable citizens."

"That's a curious way to suppress crime," said one of the youths, "to



FIGHT BETWEEN BRIGANDS AND SOLDIERS.

hire a man to be honest, after he has spent a good part of his life in robbery."

"It doesn't harmonize with our ideas of propriety," said the gentleman, "but it had the desired effect at all events. General Diaz, when he became President, induced the robber chiefs to quit the business they were in, and enter the service of the Government; they were pardoned for their misdeeds, commissioned as officers in the army, and appointed to preserve order in certain districts. Their followers were enlisted as soldiers to serve under their old leaders; each soldier receives \$40 a month, and furnishes his own horse and equipments. As they know the whole country where they are on duty, they have effectually put down brigandage in their districts; they are the best horsemen in the world, and there's no finer body of cavalry anywhere than the Mexican Rurales—the reformed brigands."

"Doesn't it sometimes happen that they turn robbers temporarily, just to keep themselves in practice?"

"Yes, they have done so in several instances, but on the whole these converted highwaymen have kept faith with the Government very fairly. You must remember that brigandage has been a regular occupation for centuries, and it cannot be broken up in a hurry. In some parts of the country it was organized as a business, and many men who stood well in the community were associated with the robbers, and received a percentage of their earnings."

"Did they take any part in the robberies?"

"Not exactly with their own hands; but they used to notify the brigands when valuable trains were to be on the road, and at what time they would start; they acted as scouts or spies, if you please, and in this way earned their right to a share of the plunder.

"I was once captured and carried into the mountains by a party of brigands who held me for a ransom. In the old times before Maximilian came here, the Mexican brigands simply robbed travellers who made no resistance, and killed those who resisted unsuccessfully. Maximilian imported some Italians, who very soon turned robbers, and affiliated with the Mexican bandits; they taught the Mexicans the Italian trick of holding prisoners for ransom, and it was practised very extensively.

"Well, the rascals carried me off to their retreat in the hills, and made me write to my brother demanding five thousand dollars as ransom for me. They threatened that in case it was not paid by a certain day I would be shot, and my friends would receive my head as a proof that the threat had been carried out.



ENCAMPMENT OF BRIGANDS.

"The letter was delivered by a respectable citizen, who was on friendly terms with my brother and myself. I had dined at his house and he at mine, and we had had several business transactions. It had been intimated that he was friendly with the brigands, and this circumstance proved it.



A KING OF THE ROAD.

My brother paid the money to him, and I was released and allowed to come home. They treated me well while I was with them, but kept a guard over me all the time with orders to kill me instantly in case I attempted to escape."

"I suppose they made you promise not to reveal the name of that man to the authorities?"

"Not at all; I could have done so, and he would have been tried and convicted on the evidence of myself and brother. He would have been



CAVALRY PURSUING A BAND OF ROBBERS.

shot without mercy, but the matter would not have ended there; the brigands would have avenged his death and assassinated both of us within a week, sure.

"In some respects the brigands were not so bad as they have been painted," the gentleman continued. "The diligence companies have an arrangement whereby a traveller can buy a letter of credit to pay his bills with along the road, instead of carrying money, which would be a temptation to robbers. His expenditures are indorsed on the letter of credit by the company's agents, or he can draw a few dollars every night upon his letter to pay his hotel bill with. But it is necessary to carry some money in your pocket to pay the robbers for the trouble of stopping and examining you; if they find absolutely nothing to reward them for their efforts, you will very likely be killed as a warning to be more considerate the next time you travel. If they should rob you of your letter of credit, you can write or telegraph back to the agency where you obtained it, and a telegraphic transfer will be made for the amount remaining.

"Their usual plan of operations is to rush out suddenly from the roadside, and present pistols and guns in the faces of passengers and drivers,
with a suddenness that prevents resistance. The passengers are ordered to
alight, hold their hands in the air, then to lie down and place their mouths
to the ground, and in this attitude their pockets are searched. The brigands are generally polite but firm, and in the American phrase, 'they won't
stand any nonsense.' When the examination of pockets is completed they
order the passengers to lie still for five or ten minutes, perhaps for a quarter of an hour, and during that time the fellows disappear from sight. If
no resistance is offered no one is harmed, except once in a while when a
blood-thirsty brigand kills for the sheer pleasure of it; but such fellows are
soon apprehended, and generally they are betrayed by their followers, who
do not relish the crimes that may be visited on their heads.

"Sometimes they build a barricade across the road at a place where there is a sharp turn, and in the confusion that follows the arrival of the coach at the barricade they perform their work. In such cases the robbers are concealed in the bushes all along the road-side, and the passengers suddenly discover a dozen or more guns bearing on them at once. Discretion is always advisable under such circumstances, and the traveller who is prudent will surrender his valuables at once.

"A friend of mine tells a story," he continued, "that illustrates the politeness of the Mexican robbers.

"He was travelling on horseback with a friend and a servant, and fell into the hands of a band of brigands whose leader was named Manuel.

The fellows took everything of value that the travellers had, and then the chief told the sufferers that he would give them a pass which would save them from further molestation. Perhaps he was not altogether disinterested in so doing, as the exhibition of the pass would save his friends the trouble of searching an array of empty pockets and getting nothing for their trouble.

"Thereupon he wrote on a leaf of my friend's note-book something like the following:

"'Dear Gomez,—This party has been thoroughly examined, and we've left them nothing you want. Please allow them to go on without delay.'

"Then he told them where they would be stopped, and was about to bid them good-by when my friend suggested that he had nothing with which to pay his expenses on the road. Manuel suggested that the travellers ought not to want for anything, and immediately gave them five dollars, which he placed in a neat pocket-book that he had taken from another traveller the day before. They met the other robbers at the place designated, and on presenting the pass were not interfered with in



HOTEL BY THE WAY-SIDE.

any way. My friend's horse had become lame, and Gomez generously gave him a fresh horse, stolen, no doubt, from somebody else, and turned the lame steed out by the road-side."

Other stories of the same sort were told, and the interview ended with an account of how the American owner of a line of coaches between Vera Cruz and Mexico City, away back in the forties, before the days of the railway, made a bargain with the chief of the brigands commanding the route, by which, in consideration of an annual subsidy, they were not to molest his coaches or passengers. The subsidy was regularly paid, and the brigands faithfully regarded their side of the bargain. When General

Scott was advancing from Vera Cruz upon the capital he made a contract with this same American to supply the army with beef; and through the efficient aid of his friends the brigands, he had no difficulty in carrying out his contract. They stole cattle from all the haciendas within a hundred miles of the route and kept him well supplied.

The road from Saltillo to Jaral follows a picturesque valley, and in the forty-two miles between the two places makes a descent of nearly four-teen hundred feet. Consequently there was more down-hill than up, and the diligence went along in fine style. The driver was an accomplished whip, and managed his team admirably. For a part of the way the vehicle was drawn by horses; at the first station mules were substituted, and our friends were unable to say which were the better for the work. The driver explained that he preferred mules for the reason that in case they ran away they would keep to the middle of the road, while horses were apt to shy and turn to one side, thereby endangering the safety of the diligence and its passengers. This difference between horses and mules has been noted by drivers in other parts of the world, and is said to be correct.

The driver had an assistant, whose duty it was to throw stones at the leading animals to encourage them to their work. He was a skilled marksman and rarely missed his aim. Sometimes he threw the missiles while seated on the box at the driver's side, and at others he ran alongside the team or kept near the wheels of the coach. In either case the result was the same, and the conveyance under his manipulations made good progress.

Crosses at several points on the road showed where travellers had been killed by robbers. On all the roads of Mexico these crosses can be seen, and on some routes they are painfully numerous.

At noon a halt was made at a hacienda sufficiently long to enable the passengers to have something to eat. They were supplied with *chile con carne*, a stew of meat and peppers, very hot in two ways, and with the ever-present tortillas and frijoles. The jolting over the road, combined with the pure air of the Sierras, gave the travellers a vigorous appetite, and they heartily enjoyed their road-side repast. The service was somewhat primitive in character, and reminded our friends of Delmonico's, in New York, solely by its contrasts.

No brigands came to disturb he progress or the minds of the travellers, and in due time they reached Jaral and were landed in safety. Fred made the following practical note for the information of future travellers:

"The fare between Saltillo and Jaral is \$3.75. Twenty-five pounds of baggage may be carried free by each passenger; for all excess he must pay seventy-five cents for each twenty-five pounds. There is a daily departure each way, and sometimes when the business demands it there are two departures."

There was not a great deal to be seen at Jaral, but the youths did not waste their time. They devoted themselves to obtaining information

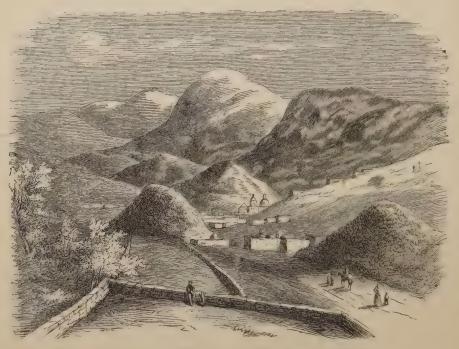


STREET SCENE AT JARAL.

about the country to the northward along the line of the International and Central railways, and here is substantially what they ascertained:

"A hundred miles to the north of where we now are is the city of Monclova, which was for some time the terminus of the International Railway. It was the capital of Texas and Cohahuila when they both formed one State, before the war which gave Texas her independence. It is the centre of a region rich in minerals, and of late years several enterprising Americans have established themselves there, and are developing the re-

sources of the country. Some of the silver ore in the Monclova district is so rich that it is sent to the United States and to Europe to be reduced,



EL REAL DE SANTA EULALIA.

and the transportation of this ore furnishes a good business for the rail-way company."

"About half-way from Monclova to the American frontier is the town of Sabinas, which is the centre of a rich coal region. Mexico is in great need of coal, and it is only recently that it was known that she had a fine supply of it in her borders. It is found in a large part of the Sabinas Valley. There are extensive mines at Hondo and San Felipe, especially at Hondo, whence they are shipping large quantities for the use of the railways in this country and Texas, and for the mines in the interior of Mexico.

"There is an abundance of iron ore near Monclova, not far from the railway, and it is proposed to erect extensive iron-works at Sabinas for its reduction. The railways seem to have waked up this sleepy country, and if some Rip Van Winkle of other days could arise and look around him, he would rub his eyes in astonishment.

"If we had come into Mexico by the Central Railway we would have passed through the State of Chihuahua (pronounced she-waw-waw); but we wouldn't have seen much, as the train leaves El Paso in the evening, runs through a desolate country, and reaches the city of Chihuahua for breakfast in the morning. Mr. Janvier, the author of 'The Mexican Guide,' says there is not much to be seen in the city, and advises travellers not to stop there. According to his account, it is so overrun by Americans that it cannot be called a typical Mexican town. It has about 20,000 inhabitants, and no public buildings of importance, with the exception of



THE RAVINE WHERE THE OUTCASTS LIVED.

the Church of San Francisco, which was built by a tax of one real on each pound of silver taken from the Santa Eulalia mines, which are in the vicin-



ON THE EDGE OF THE COTTON FIELD.

ity. Chihuahua was once the centre of a large trade with the United States; and at one time when the road was dangerous, armed caravans were made up periodically, just as they are made up in Central Asia and other parts of the Old World at the present time.

"The silver-mines of Santa Eulalia are about fifteen miles from Chihuahua, and have the reputation of being among the richest silver-mines in the world. The district is fifteen or twenty miles square, and contains, or once contained, a good many silver-mines, which turned out fabulous amounts of the precious metal. Gen. Lew. Wallace has visited and described some of these mines, and judging from his account they must have been very rich. According to tradition, there was a time when the Real de Santa Eulalia had 7000 inhabitants, and the city of Chihuahua 70,000, all living, directly or indirectly, upon the product of the mines. Since the Spaniards left Mexico the mines have not been worked as extensively as before, and the operations now carried on there are upon a limited scale. There is a prospect that some of the old glory of the mines will be restored, now that northern Mexico is becoming accustomed to American ways of mining, and is beginning to adopt them.

"There is a romantic story concerning the way the mines were discovered. About the year 1700, three scoundrels who had been driven out of Chihuahua went to find refuge among the mountains of Santa Eulalia; they must have been a very bad lot to be obliged to seek safety in that region, which was infested by the Apache Indians, who were at war with the white people, and would have made quick work of killing these refugees if they had caught them. How they lived nobody knows; they were obliged to shift their locality from time to time to prevent being found by the Indians, and one day they came upon a ravine with precipitous sides, where there was a good supply of water.

"One of the men knew something about silver, and in looking around he found a rich deposit of ore. They sent word by a friendly Indian

to the senior priest in Chihuahua that they would show him where he could get enough silver to build the finest cathedral in the world, and would do so on condition that he would absolve them from their sins, and obtain their pardon from the authorities.

"The bad men were absolved and pardoned, and kept their promise by showing the way to the mines, which were immediately opened, and yielded one hundred millions of dollars in eighty-six years. Enormous fortunes were made by the owners; and there is



"COTTON IS KING."

a story that once on the visit of a bishop who was to perform some religious service, the owner of one of the mines entertained the holy man at his house. He laid a path of silver bricks from his house to the door of

the church, and when the bishop proceeded to the church he walked all the way upon solid silver. And the story ends by saying that the owner was careful to have the bricks taken up as fast as the bishop lifted his feet from them."

Leaving Jaral a little before noon, our friends proceeded by the south-bound train of the International Railway to Torreon, a distance of 130 miles, which was accomplished in about five hours. At Torreon they waited two hours for the train of the Mexican Central Railway, and while looking about them the youths espied several car-loads of cotton, which were about to leave by a freight train then being made up.

Naturally, the sight of the cotton led to an inquiry concerning the production of that article in Mexico and the uses made of it. The youths learned that cotton is grown in about half the States of Mexico, the largest quantity being produced in the State of Vera Cruz, while that of Durango ranks next. In the early part of the century about one million pounds of cotton were exported annually. Down to the time of the independence of Mexico from Spain, the royal authorities allowed no manufactures in the colony that would be likely to interfere with those of the mother-country, and consequently the manufacture of cotton goods was prohibited. After independence was secured, factories were built and set in operation, and at present the production of cotton is not sufficient to meet the demands of the manufacturers.

The best cotton is grown in the tierra caliente, but the plant thrives in the table-land up to an elevation of 5000 feet. According to a Mexican statistician, the average product is about 2000 pounds to the acre, which is more than double the average of the cotton-growing region of the United States.

Torreon and its near neighbor, Lerdo, are the principal shipping-points for the cotton grown in Durango. It is probable that the opening of the railways will stimulate the growth of cotton in Mexico. The United States and other cotton-growing countries may look for considerable exportations of that product from Mexican seaports at no distant day. The manufacture of cotton cloth in Mexico is encouraged by an import duty on all foreign textiles that does not give much opportunity for competition. German and English manufacturers have labored hard to convince the Mexicans that they would be greatly benefited by allowing other countries to do their manufacturing for them, but thus far the Mexicans have remained obstinately adhesive to their protective tariff.

The train left Torreon a few minutes before seven o'clock in the evening, and consequently but little was seen of the country until the follow-

ing morning. Soon after daylight it reached Fresnillo, an important mining town which dates from the middle of the sixteenth century. A valuable silver-mine was opened at Fresnillo at that time, but its operation was long ago abandoned. Fresnillo is the point at which the two sections of the Mexican Central Railway were brought together in 1884, and the route was completed for an unobstructed run of the locomotive from the frontier of the United States to the capital of Mexico.



VIEW IN THE MINING REGION.

Our friends made their toilets in the sleeping-car as quickly as possible, and then turned to a contemplation of the scenery through which they were passing. On each side of the railway there was an extensive plain, with a fringe of low mountains forming the horizon. Straight ahead lay a range of mountains, which a friendly fellow-passenger said was rich in silver and had made the fortunes of Zacatecas and other towns.

They stopped for breakfast at a small town bearing the name of Calera, but neither Frank nor Fred could find that it was famous for anything, not even for the quality of the meals supplied by its restau-

rant. Then they rolled on towards Zacatecas, which they reached in about an hour after leaving Calera. In approaching Zacatecas the train wound among the mountains in numerous curves and bends, forming "mule-shoes" by the dozen, and facing every point of the compass before coming to a halt.

Zacatecas affords a good opportunity for studying silver-mining in Mexico, and consequently it had been selected by Doctor Bronson as a convenient stopping-place. By advice of the conductor, our friends rode in the tramway cars to the hotel, and intrusted their baggage to cargadores, who were more than anxious for employment. The hotel in which they lodged was formerly an Augustinian convent, and all the more interesting for that reason.



CONVENT AND FOUNTAIN.

CHAPTER VI.

NAME, POPULATION, AND PECULIARITIES OF ZACATECAS.—THE PILGRIMAGE CHAPEL.—A WEALTHY CATHEDRAL.—STREET SCENES.—MINES OF ZACATECAS.

—A DANGEROUS DESCENT.—THE PATIO PROCESS OF REDUCING ORES.—TREAD. ING ORE WITH MULES AND HORSES.—A SORRY SIGHT.—THE MINERS; HOW THEY LIVE AND WORK.—STATISTICS OF SILVER-MINING IN MEXICO.—ASTOUND. ING CALCULATIONS.—FROM ZACATECAS TO AGUAS CALIENTES.—FARM SCENES.—FARMING IN MEXICO.—CONDITION OF LABORERS.—MEN AS BEASTS OF BURDEN.—AGUAS CALIENTES.—A BEAUTIFUL CITY.—A PICTURESQUE POPULATION.—WOMEN OF MEXICO.

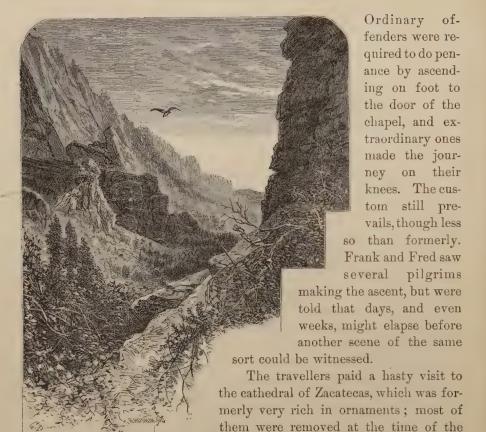
"WHAT is the meaning of Zacatecas?" Fred asked while the train was bearing them to the city of that name.

Neither the Doctor nor Frank could answer the question, and so the desired information was sought from the guide-book.

It was found that the name was derived from a tribe of Indians called Zacatecas, and also from a grass that grows there, and is known in Mexico as zacate. It should be remembered that the city is the capital of the State of Zacatecas. As it stands in a ravine, where very little grass of any kind can grow, it is probable that the appellation, so far as the grass is concerned, belongs rather to the State than to the city, which is the centre of the silver-mining district.

The city, which has a population of about 30,000, is anything but attractive, as its position in a deep ravine makes its streets very narrow, and crowds the buildings closely together. Its streets are badly paved, and it is so poorly supplied with water that the drains are not properly washed. Frank thought it averaged a distinct and different smell for each thousand of its inhabitants, and the youths were not surprised to learn that the mortality, especially among the poorer part of the population, is very great. The mountains rise all around and above the city, and the extent of the silver business is shown by the large number of buildings on the mountain-sides, which mark the reduction-works and the entrances to the mines.

There is a ridge called the Bufa, or Buffalo, overlooking the city; it is the site of a little church, or chapel, that was built there more than a century and a half ago, and was at one time a favorite place of pilgrimage.



A SILVER-PRODUCING VALLEY.

ings.

by the Government, and are not likely to be restored. It is said that the baptismal font was of solid silver, and worth \$100,000. The Jesuits have on the side of the mountain a fine church, which presents a very picturesque appearance and contains some interesting and valuable paint-

confiscation of the property of the Church

The street scenes were much the same as at Monterey and Saltillo, with the addition of groups of miners and men employed about the reduction - works, droves of burros, or donkeys, laden with ore and other things peculiar to the industry of the locality. The youths wished to visit the mines and descend to the scene of operations underground, and consequently were not inclined to devote much time to the public buildings and the streets. They observed that the city had sufficient enterprise to be lighted with electricity, and to have a telephone, an exchange, and a fire department, though the scarcity of wooden buildings seemed to afford very little use for the latter.

They were advised not to go into the mines, as the descent must be made by ladders which are not constructed like ordinary ones, but are nothing more than logs set upright and notched alternately on opposite



CACTUS GROWTHS NEAR ZACATECAS.

sides. The miners ascend and descend very nimbly along these rude ladders, and accidents are rare; but strangers find them dangerous.

Frank and Fred were quite willing to take the risk, but the Doctor was more prudent, and suggested that they would defer their visit to the interior of a mine until they reached one with less liability to mishap. But this did not interfere with a visit to one of the reduction-works, for which a permit was readily obtained.

"Before we make the visit," said the Doctor, "I want you to learn what the patio process of reduction is, so that you can see intelligently. The patio process is in use here, as it is throughout Mexico and South America generally."



FIELD WITH ADOBE WALLS.

In the hour they had at their disposal, Frank and Fred informed themselves on the subject, and were able to write as follows:

"The patio process was invented in 1557 by Bartolomé de Medina, and is so called because a patio, or yard, is required for its operation. The ore is crushed and ground fine in arastras. An arastra is a mill where an animal, generally a mule, walks in a circle and turns a millstone that rolls upon a floor, on which the material to be ground is placed. We have seen arastras at work several times since we came into Mexico; and they are not unknown in the south-western part of the United States.

"If there is any gold in the ore, fifty or sixty per cent. of it may be saved by putting silver or copper amalgam into the arastras. Some of the Mexican ores must be roasted to remove certain chemicals which they contain, but this is not the case with all of them. The paste from the

arastras is spread in heaps on the floor of the patio; after it has hardened somewhat by the evaporation of a part of the water it contains, it receives a quantity of salt, which is in proportion to the amount of silver in the ore. Then it is mixed by men with shovels and by the tread of horses or mules, and a day or two later a mixture of copper vitriol and salt is added.

"Then follows more treading and mixing; then quicksilver is spread over the mass and trodden in, and the next day there is another mixing and treading. These performances are repeated on alternate days, quicksilver being added one day and the mass being trodden the next, until the treading has been repeated seven or eight times. The quicksilver unites with the silver and forms an amalgam; the formation is carefully watched, and when it has reached the proper condition the amalgam is gathered up



A MEXICAN ARASTRA.

into hide or canvas bags. Some of the quicksilver is squeezed out, and the rest is driven off by evaporation and condensed in a pipe that runs into a tub of water."

"There's a good deal more," said Fred, "but I'm afraid if we say too much about the process we shall lead our young friends at home to skip the whole story. So we've made it short."

"You've said quite enough," replied the Doctor, "to give a general idea of what the patio process is. Anybody who wants to know more can look it up in books on mining, or in cyclopædias."

Armed with the information they had obtained, the youths were able to understand intelligently the operations at the reduction-works that they



CARRYING ORE TO THE REDUCTION-WORKS.

visited. Frank thought they could find a cheaper way of mixing up the mass of ore than by treading it out with mules. Doctor Bronson told them that methods had been adopted in California and Nevada whereby all this work is done by machinery, but they were not generally approved in Mexico. "The Mexicans," said he, "are slow to change; they have done their work in this way for 300 years, and it is not easy to convince them that

there is anything better in the world. The Americans who buy or lease mines in Mexico, and adopt the plans that suit themselves, will afford some instruction by example; the Mexicans may learn by the example, especially if they find that the new process enables their competitors to make money out of a mine they cannot do anything with."

In one patio there were 120 horses at work, in gangs of twelve or sixteen, treading out the ore. "They are sorry-looking brutes," said Fred, "as



A MEXICAN CRUSHER.

their tails are shaved, and their bodies splashed with the black mud through which they are walking. To us it looks like ordinary mud, but to the eye of the expert I suppose it is altogether different, as we are told that a mining superintendent can determine almost at a glance how rich the mineral

is. Evidently the horses don't know the value of what they are treading, or they wouldn't look so dejected and forlorn. Horses and mules that are old and useless for anything else are bought for this work. The chemicals destroy their hoofs, and they do not last a great while. If there were a Mexican Henry Bergh he would most certainly try to put a stop to this cruelty.*

"The men who are working among the horses are about as unprepossessing in appearance as the animals. They wear only a shirt and trousers, and both garments look as though cloth was dear when they were planned. The trousers come only to the knee, and the sleeves of the shirt do not reach the elbow. The men who work in the mines and about the reduction establishments are carefully searched on quitting work, to make sure that they do not carry off anything of value; their garments are without pockets, and thus they have no places for storing away stolen property. But in spite of the absence of pockets, they would manage to steal some of the amalgam if they were not so closely watched and carefully searched.

"In some of the mines, they work with scarcely a thread about them, the heat being so great that clothing cannot be borne with ease. The miners generally work in small teams or gangs, and receive a portion of the ore taken out in addition to their wages, which vary from thirty to fifty cents a day. Sometimes the payment is altogether in ore, which is sold at auction on stated days.

"We asked if the miners ever gave trouble by striking, and were told that they had not yet become sufficiently Americanized to form themselves into labor unions. The people seem to be entirely content with what they receive, and as they have very few wants, and do not try to save anything from one week to another, it is not likely they will change their ways in a hurry."

"While we are on the subject," wrote Frank, in a letter describing the visit to Zacatecas, "we may as well say what we learned about silver-mining in general throughout Mexico.

"Silver was known to the Aztecs before the Spanish Conquest, but they do not seem to have made much use of it. They worked it into ornaments and various small articles, but among the treasures of Montezuma seized by Cortez the amount of silver was very small compared with that

^{*} The youths were evidently unaware that there is a Mexican Society for the Prevention of Cruelty to Animals. Its headquarters are in the City of Mexico; its president is Señor Vidal Castañeda y Nadal, and its secretary Señor Eduardo L. Gallo. The society had done excellent work in preventing cruelty to animals, and in addition to other things has caused bull-fighting to be suppressed in several parts of the republic.

of gold. The Spaniards had no idea of the immense value of the country when they conquered it, so far as silver is concerned."

"But they began developing the mines very soon after they captured the country," Fred remarked.

"Yes," responded Frank; "in the expedition commanded by Cortez there were many men who were familiar with the mines of Old Spain, and they were not long in finding the silver deposits of the New World.



BRINGING ORE FROM THE MINES.

During the sixteenth century the mines of Mexico were extensively worked, and the working continued steadily down to the war for independence, when it greatly fell off. At the time of Humboldt's visit, in 1803, about 3000 distinct mines were in operation; Humboldt estimated that

the product of silver in Mexico from the Conquest, in 1521, down to 1804 amounted to \$2,027,952,000, and the estimate since that time brings the grand total up to more than 4,000,000,000!"

"What a lot of money!" exclaimed Fred. "Suppose we had it, and wanted to take it to New York; how could we carry it?"



MEXICAN BELLOWS,

"Wait a moment," was the reply, "and I'll tell you."

Frank made a hasty calculation on a slip of paper, and then answered as follows:

"Roughly estimated, the weight of that value in silver would be 333-000,000 pounds, or 166,000 tons, estimating 2000 pounds to the ton. If we had it in the City of Mexico we would have to engage 416 trains of forty cars each, with ten tons of silver in each car, to take it to Vera Cruz. From Vera Cruz we would need 166 steamships carrying a thousand tons each, to take our precious freight to New York, and I'll let you figure out how many warehouses we would need to store it in, and how many policemen would be required to take care of it."

"Well," said Fred, "there's one thing you've forgotten; remember that the most of this silver has been brought from the mines on the backs of mules or donkeys. Reckoning 100 pounds to a load, how many burros would be needed to transport our fortune, supposing we had it?"

Frank figured again, and found that the silver product of Mexico from the Conquest to the present time would load three and a third million burros; putting them in single file, and allowing each burro ten feet of space, there would be 631 miles of them, and half a mile or so over.

"Let's go into the business of silver-mining," said Fred; "just see

what a lot of money has been made by it, and with very crude methods of reducing the ore! With the improved processes of modern times there must be a fortune for everybody."

"I don't know about it," replied his cousin; "anyway, we'll ask Doctor Bronson's advice before we venture."

The appeal to the Doctor resulted in a good deal of sound information, to the effect that silver-mining is generally unprofitable, and anybody should think twice before venturing into it. "And so far as the Mexican mines are concerned," he said, "there are very few of them that are doing more than paying working expenses, and some do not do that.

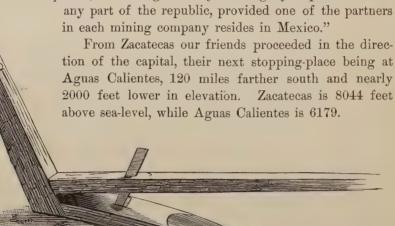


MEXICAN SMELTING-FURNACE

Fifty or more American companies are engaged in this country at present; a few have made money, but the majority have not yet received back what they put into their enterprises, or any interest upon it. And unless I am misinformed, it is next to impossible to buy a good mine here; if a Mexican has a mine he is willing to sell, you may be pretty sure it isn't worth buying. The same rule holds good in all mining regions the world over, and is hardly necessary to discuss. The mining laws of Mexico require that the owner of a mine must work it for four consecutive months in each year, with four regular miners, under penalty

of forfeiture. Unless he complies with this law the mine becomes the property of the Government and is sold at auction.

"The laws of Mexico formerly prohibited foreigners not naturalized, or provided with special licenses, from owning or working mines; but this provision was repealed, and foreigners may now legally acquire mines in



AN OLD-FASHIONED PLOUGH.

For the first part of the journey the railway winds among the hills; then it comes out into a rich and comparatively level country, where great quantities of corn, wheat, barley, and wool are produced. The plains and hill-sides were dotted with flocks of sheep, and the numerous fields showed that the land was favorable to farming industries.

Farming in Mexico is in a backward condition, the implements being mainly of the primitive type. American ploughs, harrows, mowers, reapers, and other farming implements and machines have been introduced, as already mentioned, since the advent of the railways, but the Mexican laborer does not take kindly to their use.

It is said that on the haciendas where improved farming implements and machinery have been introduced they have been maliciously destroyed or put out of working order by the peons; their hostility to labor-saving inventions is just as great as that of the same class of people in other parts of the world. During the construction of the railways some of the contractors brought a supply of wheelbarrows, to replace the gunny-sacks with which the peons have been from time immemorial accustomed to carry earth on their backs or heads. Being made to un-

derstand that they must use the wheelbarrows instead of the sacks, they filled the vehicles with earth and carried them on their heads. The contractors were obliged to return to the use of the gunny-sack, as they found more work was done with it than with the wheelbarrow.

The Indians living in the neighborhood of the cities come down from their homes in the hills, bringing on their backs large baskets filled with

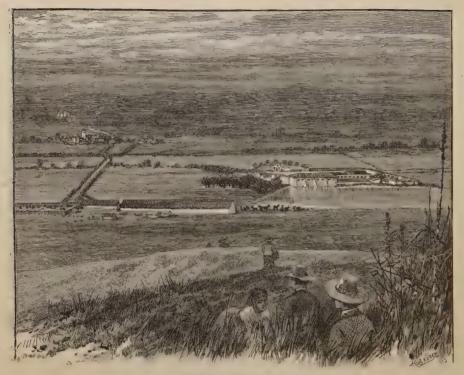
garden vegetables, chickens, and other marketable things. The story goes that when an Indian from the hills has sold his burden, he puts a stone weighing fifty pounds or more in his basket, in order to give him a "grip" with his feet on the ascending road which leads to his home.

The agricultural laborers of Mexico are not an enterprising race, and care nothing beyond suptheir daily plving They were wants. formerly held in a condition of slavery, both before and after the Spanish Conquest; but slavery was abolished soon after the war of independence, and therefore the agricultural laborers, miners, and



FARM-LABORER IN A GRASS CLOAK.

all other classes of working-people, for the last fifty years and more, have been free. The miners are said to be better workers than the farm-hands, as they are not migratory in their habits, and generally spend their lifetime



HACIENDA NEAR THE CITY.

in the places where they were born, unless compelled to go elsewhere in search of employment.

Before the Conquest beasts of burden were unknown, and everything that had to be transported was moved by human muscle. The priests imported donkeys to take the place of men in carrying burdens, and from the animals thus introduced the present race of burros is descended. Cattle, sheep, horses, and hogs were brought from Spain previous to the importation of donkeys, which did not make their advent until the eighteenth century. Horses, cattle, and mules in great number are raised in Mexico annually, but the stock-growers do not pay much attention to other animals.

The foregoing was learned by Frank and Fred during their ride from Zacatecas to Aguas Calientes, and therefore this is its proper place in the narrative.

"There must be a hot spring where we are going," said Fred, "as aguas calientes means 'hot waters."

"You are right," replied the Doctor; "there are hot springs in the city and all through this region, and the baths of the city are famous, like most hot baths, for their beneficial effects in rheumatism and other diseases."

Of course a hot bath was one of the things to be sought, and the travellers found it without difficulty. There was a bathing establishment in the city, but they were advised to shun it and visit the suburban baths, which were easily reached by the tram-way. The temperature of the water is 106° Fahrenheit, and the supply is abundant. The baths, combined with the general beauty of the place, have made Aguas Calientes a popular health resort, and with the improved accommodations that are sure to follow the advent of the railway the popularity will increase.



PRISONERS AT WORK IN THE JAIL.

"It's the prettiest city we have seen since we came into Mexico," wrote Frank in his note-book—"prettier than Monterey, Saltillo, or any other of our halting-places. It abounds in gardens, and the people seem to have a passionate fondness for flowers, if we may judge by the ex-



OF SPANISH BLOOD.

tent to which they cultivate them. Around the city the country is fertile, and there are finely cultivated fields, luxuriant vineyards, rich meadows, and everything to please the eye. It is said that artists have a special liking for this place, and now that I've seen it I'm not at all surprised.

"Whoever laid out this city had an eye to the picturesque, and realized that land was plenty, as he gave it one large plaza and ten smaller ones, and adorned several of the plazas with gardens. Then there are some fine buildings belonging to the Government. There are thirteen churches, a hospital, and a college; and I must not forget that there is a jail, which is well patronized, and is said to be very attractive for a jail. We have

been through the market, which is supplied with more fruit than we have seen since we left Monterey, together with several varieties that we have not observed elsewhere.

"They have a population of about twenty-five thousand here, and the chief industry is in manufacturing. They make cloth of various kinds, including some fine woollens, and we have seen handsome work in leather and some very pretty pottery. Everybody we've talked with says that it's a pity it is not the time of the annual fair, which lasts from the 23d of April to the 10th of May, and brings in a large number of people from the surrounding country. There are many curious costumes and customs to be seen during the fair, which is a period of feasting for all who attend it. Mr. Janvier says it resembles our Thanksgiving, as everybody then lives upon cacones, or turkeys. The festival is of very ancient date, and was held before the advent of the Spaniards.

"In such a beautiful city we have looked for beautiful inhabitants, but haven't found a great many, though it is proper to say we haven't been able to hold a review of the whole population. While walking in one of the gardens we saw several pretty girls of Spanish blood, accompanied by their duennas; for, according to Spanish custom, no young girl is allowed to walk out alone. They were dressed much after the fashion of Paris or New York, except that they wore the lace veil or mantilla over their heads, instead of the bonnet, which is the fashion with us. Their taste seems inclined to gaudy colors, derived perhaps from the luxuriance of nature around them.

"The lower classes of the people are much more picturesque than the upper, and the women more so than the men. Their skins are dark, and

their hair and eyes are invariably black. They keep their teeth white, and are said to do so by a vigorous application of the juice of the soapplant. A piece of the stalk of this plant is chewed until it forms a sort of brush: it contains a soapy juice that has cleansing properties beneficial to the teeth. Many of the young women are pleasing to look upon, but they are said to lose their good looks before reaching middle life, for the reason, no doubt, that they have to do a great deal of hard work. Their dress is a cheap calico, short in the skirt and generally bright in color, with a loose jacket or waist. If their heads are covered, it is with the rebozo chiquito, a scarf of silk or cotton



INDIAN GIRLS AT A SPRING.

that is wrapped around the head and shoulders, and has a long fringe, which falls down the back. The rebozo is very convenient for carrying a baby, who is suspended there exactly as babies are carried in Japan."

CHAPTER VII.

SOUTHWARD AGAIN,—CROSSING A BARRANCA.—BARRANCAS IN MEXICO.—LAGOS AND ITS PECULIARITIES.—LEON, THE MANUFACTURING CITY OF MEXICO.—SILAO.—ARRIVAL AT GUANAJUATO.—A SILVER CITY.—THE VALENCIANO MINE.
—AN UNHEALTHY PLACE.—BAD DRAINAGE.—A SYSTEM OF RESERVOIRS.—THE CASTILLO DEL GRENADITAS.—AN INDIAN'S ARMOR.—EXPERT THIEVES.—STEALING A GRINDSTONE.—MARKET SCENES.—HEADS OF SHEEP AND GOATS.—SCHOOLS AT GUANAJUATO.—EDUCATION IN MEXICO.—DOWN IN THE RAYAS MINE.—SIGHTS UNDERGROUND.—AN INDIAN WATER-CARRIER.—HOW A SKIN IS TAKEN WHOLE FROM A PIG.—THE REDUCTION HACIENDA.—MR. PARKMAN'S MACHINE.—QUERETARO.—THE HERCULES AND OTHER COTTON—MILLS.

SATISFIED with a day at Aguas Calientes, the party took the south-bound train, and did not stop until reaching Silao, after a run of 130 miles. An hour or more after leaving Aguas Calientes, they crossed the barranca, or cañon, through which the Encarnacion River flows; the bridge by which they crossed it is built of iron, and is more than 700 feet long. It is fully 150 feet above the water, and the view as one looks downward from the centre of the bridge is apt to cause dizziness to a nervous traveller.

"Perhaps you don't know what a barranca is," wrote Frank, in his next letter to his mother. "Well, it's a deep channel which the water has worn in its steady flow for thousands of years through the earth or soft rock. The channel of Niagara River from the falls to Lewiston may be called a barranca, and so may any similar cutting made by a stream, whether large or small. Some of the Mexican barrancas are 2000 feet wide, and 1000 or 1500 feet deep; their sides are almost precipitous, and every year the waters wear a deeper way through the rock or earth.

"Did you ever walk through a field, and come suddenly upon a ditch or brook that was not visible a few yards away? Well, that's the case with some of these barraneas. You come upon one without being aware that you are near it; you may be galloping along enjoying the fresh air and the pleasure of a ride, when all at once your horse stops, and as you draw the reins you find yourself on the edge of a precipice, looking down hundreds of feet, perhaps, to the turbid stream struggling along its course. On

the other side of the barranca the country is level again, and you could gallop on without trouble but for the yawning chasm that stands in your way.

"The barraneas are crossed by descending to the stream along a sloping road built with great ingenuity and at much expense; the stream is passed by an ordinary bridge, and the high ground is reached again along another sloping road. Barraneas have long been a serious obstacle to the



A DRY BARRANCA.

construction of wagon-roads in Mexico, and in recent years they have taxed the ingenuity of railway engineers who sought to pass them."

The first important city on the route was Lagos, which has a population of 25,000 or thereabouts, and is devoted to manufacturing; farther on is Leon, which is four times as large, and five or six times more impor-

tant, as it is the principal manufacturing city of the republic, and was founded about 1550. Formerly there was a great fair held at Leon annually for the sale of goods; it was similar to the great fairs of Europe before the invention of the railway, but has dwindled in importance as the railways have come in, and will probably be abandoned before many years.



CHURCH OF SAN DIEGO, GUANAJUATO.

"What do they make at Leon?" one may ask. For answer, Fred or Frank will tell you that they make pretty nearly every kind of article that finds a market in Mexico and can be fashioned by Mexican hands. There are numerous tanneries there, and the leather which they produce is made into boots, saddles, harnesses, leggings, and other things into whose composition leather enters. There are factories for the manufacture of cotton and woollen cloth, serapes, rebozos, and the like; there are large shops where hats are made of every Mexican style and kind, and sent to all parts of the republic; and there are soap factories, iron founderies, cutlery establishments, tool-shops, and so on through a long and possibly tiresome list. And it is safe to say that a popular vote of the inhabitants of Leon would show an overwhelming majority in favor of a protective

tariff. Leonites are firm believers in protection to home industries, and look frowningly on any movement to supplant their goods with those of foreign make.

About seven o'clock in the evening the train reached Silao, whence there is a branch fifteen miles long to Guanajuato, or rather to Marfil, its suburb. It was nearly nine o'clock when they reached the hotel at Guanajuato; there was not much to be seen in the evening, and so the time was passed mostly at the hotel, and devoted to a consideration of the history of the place. The youths found that the site of Guanajuato (pronounced Gwan-a-what-o) was given by one of the early viceroys to Don Rodrigo Vasquez, who was one of the conquerors who came with Cortez; the gift was a reward for Don Rodrigo's services in assisting to add this valuable possession to the crown of Spain. According to tradition, the discovery of silver was made here by accident some time in 1548, and it immediately brought a crowd of adventurers in search of fortunes. For a long time Guanajuato was one of the most productive silver districts of Mexico; but since the Spanish domination ended, the product has greatly diminished; the yield at present is about \$6,000,000 annually, and there



COURT-YARD OF A MEXICAN TENEMENT-HOUSE.



SUPERINTENDENT'S HOUSE AT SILVER REDUCTION-WORKS.

José de Valenciano, and it is said to have yielded in the days of its prosperity about \$800,000,000 worth of silver. When Humboldt visited it at the beginning of this century he estimated that it produced one-fifth of the silver in the world. It was "in bonanza," as the miners say, for about forty years after it was opened, and paid enormous dividends to its owners in spite of the heavy taxes exacted by the Government. From ten to twenty thousand people were employed in and around the Valenciano mine when it was in full operation. The galleries, chambers, and drifts of the mine are said to be more extensive than all the streets of the city, and the great tiro, or central shaft, is nearly 2000 feet deep. All the lower part of the mine is now filled with water, and it cannot be removed except at a cost so great that nobody is willing to undertake it. The veta madre, or "mother-vein," on which the mine is located is pierced by several other mines, and many persons believe that Guanajuato has "seen its best days."

Doctor Bronson arranged for his party to visit one of the mines where the process of working could be seen; his application to the *adminis*trador, or director, of the mine that they wished to see was courteously received, and the desired permission granted at once. Fred will tell the story of the excursion.

"While waiting for the pass from the administrador," said Fred, "we took a look at the city, which has a population variously placed at from fifty to seventy thousand, mostly dependent on the mines for their support. The city stands in a ravine, and reminded us of Zacatecas. All the world over, mining towns are almost always in mountain ravines or valleys, and Guanajuato is no exception to the rule.

"The streets are narrow, and badly paved with cobble-stones, and locomotion with carriages is not at all easy. The little stream that flows through the city is formed into three reservoirs at the upper end of the

ravine, one above the other. When the upper reservoir is filled, the water overflows into the next below, and that in turn fills the lower one. From the water thus collected the city and the mills below it are supplied. When the rainy season begins, the floodgates are open, and the waters rush in a torrent through the ravine and wash it thoroughly. This is the only washing it gets until another year comes around; and you will understand from this that Guanajuato is a very 'smelly' city, and has a large death-rate. There isn't water enough for a good, healthy system of sewerage; but this does not trouble the Mexicans very much.

"In every Mexican town or city we have visited thus far, we have seen women at the plaza and fountains and encountered troops of don-



A TON OF SILVER.

keys carrying water. Water-carriers have no occupation here, as the liquid is supplied through pipes, just as in New York or any other American city. The concession to establish water-works was given to an enterprising citizen, Señor Rocha, and he made a good deal of money by the operation. He built walks and seats all around the reservoirs, and thus gave the inhabitants an agreeable *paseo*, or promenade.

"Our guide showed us the Castillo del Grenaditas, which is an immense building like a fortress, and now used as a *carcel*, or prison. It was built in the early part of this century as a storehouse for grain for public use in times of scarcity; its walls are several feet thick, and it has a large court-yard in the centre. It was a place of refuge for the Span-



A MEXICAN BEGGAR.

iards when Hidalgo made his pronunciamento in 1810 and set up a revolution. Several hundred Spaniards fled to the Castillo and shut themselves in. They made a vigorous defence, and the attacking force was steadily repelled. Hidalgo tried many times to reach the gates, but every time his men attempted it they were shot down.

"At last an Indian, carrying a flat stone on his back as a shield against the Spanish bullets, reached the gates and set them on fire. The stone which he used in this exploit was shown to us, at least one that purported to be the identical shield. The besiegers rushed in through the gates, and the castle fell. A year or so afterwards Hidalgo was captured and executed in Chihuahua. His head

and the heads of three of his companions were brought here and hung on hooks at the four corners of the building. They were taken down and buried with high honors in 1823, but the hooks are still in position; the one on which Hidalgo's head was placed was pointed out to us.

"At almost every step along the streets we were accosted by men who had all sorts of articles for sale. Shoes, clothing, spurs, cutlery, rebozos, serapes, and similar things were offered, and the prices seemed very low; but we were told not to offer more than half what was asked for anything, and unless we really needed it we had better be careful about offering anything at all.

"We were cautioned to be watchful of our pockets, as there are expert thieves in the city who could steal anything for which they set out. We saw some grindstones in one of the shops, and asked our guide why they were chained to the wall and the chains fastened with padlocks. He said it was because there were men around who would steal them on general principles. They had no use for them, nor any idea what they were for, but as they were the heaviest articles to be seen, they were supposed to be the most valuable!

"In the market we saw that the poor people of this mining city are compelled to be very economical. When meat is not disposed of fresh, it is dried and sold in that shape. The dried heads of sheep and goats were piled on the ground to be sold as food; dried with the skin and horns on, and the people stood around and haggled for them down to the fraction of a cent. An important article of food here is boiled *calabazas*, or pumpkins; and another staple of diet is gruel made of coarse corn-meal. The



OLD CONVENT NOW USED AS BARRACKS.

guide said the head of a sheep or goat or the nose of a bullock was added on Sunday to this very meagre diet, and the miners and their families were quite contented with such food. Truly, one half of the world doesn't know how the other half lives.

"We were invited to visit one of the schools, but hadn't time to do so any more than to look at the building as we went past it. A gentleman

whom we talked with told us that the State college is in a flourishing condition, and has upwards of three hundred students, many of them of pure Indian blood. Education among the people of Mexico is not very far advanced, but is better than many people suppose. It has made great progress in the last twenty years. Before that time it was very backward, and



A LEADING CITIZEN.

a considerable part of the population could not read or write.

"The Government seems to be thoroughly awake to the necessity of having its population intelligent, in order to advance the interests of the country. In all the towns and villages there are free schools supported by the Government or by the local authorities, and in the cities there are advanced schools and colleges and a great number of private schools. Then there are technical and industrial schools, where trades are taught, and military schools for those who desire a military education and intend entering the army. In

the cities free night schools for men and women, similar to the night schools of New York and other American cities, have been established. Some of them are well attended, but that is not the case with all.

"All of the Mexican States make liberal appropriations for public primary schools, and they tell us that last year there was an aggregate school attendance of 500,000. There must be an equal number of pupils in the private schools and in schools maintained by churches, missions, and benevolent societies, so that the whole attendance may be set down as an even million. Of course this is not up to the standard of the United States, especially of the northern portion, but it is a great advance for Mexico, where forty years ago not one person in ten could read. It is believed that fully one-half of the Mexican people to-day can read and write, or certainly a large proportion of them.

"Accompanied by our guide we drove to the Rayas Mine, or rather quite near it. The administrador met us at his office near the entrance, and assigned to us a guide who spoke English, though not very well. His

English was better than our Spanish, and as he seemed to prefer it, we did not try to talk to him in his own tongue. We expected to descend by a cage in the tiro, but found that the way to the vein was down a stone staircase. The steps were slippery in places, and we had to be careful about placing our feet, as any carelessness might result in a fall. Frank began to quote the old Latin lines about facilis descensus, but our guide said 'chestnoot,' which he said he learned from an American, and Frank had nothing more to say on the subject.

"We had a long and tiresome walk through the mine, and the dimlight of the lantern and candles only served to make the darkness visible until our eyes became accustomed to it. When we reached the vein we



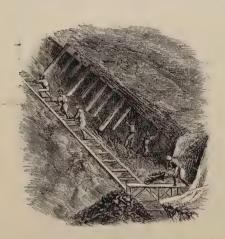
PRISONERS BREAKING ORE.

were unable to distinguish the rich ore from the worthless rock in which the mineral lay, and soon made up our minds that we were as far as possible from being experts in mining.

"It was well for us that we laid aside our own clothes and put on some garments especially intended for the underground excursion, as we were splashed from head to foot with mud when we came out, and were sorry-looking spectacles for a photograph gallery. Each of us had a candle stuck to the top of his hat by a lump of wet clay. Every little while one

of us knocked off his candle, and then there was a halt until it was adjusted.

"We saw many of the peons at work, each with a candle fixed in his hat, the fashion that has prevailed here since the mines were first opened. Sometimes they were in little groups, who put their earnings into a gen-



SLOPING LADDERS IN A SILVER MINE.

eral pool, and sometimes they were working singly on spots allotted to them by the superintendents. guide told us that the men worked on shares, half the ore taken out being the property of the owners of the mine, and half going to the peon. The ore is placed in heaps. The shares of the miners are sold at auction or private sale, or they may be reduced and the proceeds turned over to the proper claimants after taking out the cost of the reduction. The miners generally prefer the system of direct sales, for the reason that they can more readily obtain their pay in

this manner than by waiting for the reduction of the ore and extraction of the silver.

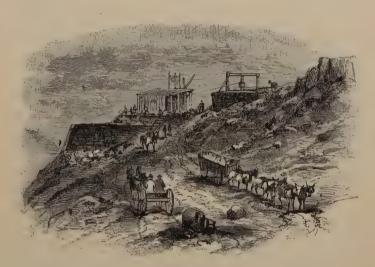
"The hardest part of the work seemed to be the carrying of the bags of ore up the long flights of slippery steps to the mouth of the mine. From the lower levels the water is removed by pumping, and in some places it is carried in pig-skins on the backs of naked Indians to where the pumps are at work. A pig-skin filled with water on the back of a man climbing up the sloping steps looked at a little distance like some strange animal which has not yet been assigned a place in natural history. These skins have the exact shape of the pig, and are without cut or seam, and we naturally wondered how they were obtained so nearly whole as they seemed to be. We had seen them before in the Mexican towns, as they are in common use by the water-carriers, and one day we asked an American resident how they skinned pigs in Mexico.

"'Why,' said he, 'it's easy enough when you know how. They don't give the pig anything to eat for a couple of days; then they tie him to a tree by his tail, hold an ear of corn about three feet in front of his nose, and so coax him out of his skin.'

"Another man told us that the body of the animal is beaten with a

club till the bones are smashed to pieces, and the flesh reduced to a pulpy mass, which is then drawn out through the neck, along with the fragments of bone. This seems more probable than the other process; at any rate, we give it the preference."

From the mine our friends went to one of the reduction haciendas, where they saw the process of extracting silver from the ore, which has been described on previous pages. There are about fifty reduction-mills at Guanajuato, some worked by horse or mule power, others by water, and others by steam. Three kinds of crushers are in use, the Mexican arastra, the Chilian mill, and the American stamp-mill, all of which have their advocates, who prefer them to the others. The patio process is employed here as well as elsewhere, and hundreds of horses and mules are annually worn out in treading the ores. An American named Parkman made an



OPENING A NEW MINE.

improvement on this system by rolling a loaded barrel over and through the mixture by means of horses or mules walking in a circle, as in an old-fashioned cider-mill. The barrel mingles the ore and the chemicals as well as the horses' feet could do it, and the injury to the hoofs of the animals is prevented, as they do not come in contact with the mass. Sometimes heavy wheels are used instead of the barrels, and they are arranged on a graduated scale, so that they move slowly from centre to circumference of the *torta*, or pulp heap, as they revolve, and from circumference back to the centre again. In this way the entire surface is gone over; the re-

duction of the mass takes from twenty to thirty days, and is thoroughly done.

From the hacienda they were taken to the mint, where silver coins are made in the same manner as in mints in other parts of the world. The machinery of the mint is of English construction, and several Englishmen



ENTRANCE OF A MINE NOT IN OPERATION.

are or were connected with the establishment to superintend the more delicate parts of the apparatus. From the mint they went to a hill called the Cerro de San Miguel, which gave them an excellent view of the city and the hills that surround it. The number of elegant residences in sight convinced them that there is yet a great deal of wealth in Guanajuato, notwithstanding the decline in the yield of silver from the mines.

The next stop in the journey towards the capital was made at Queretaro, eighty-five miles from Silao, or one hundred from Guanajuato. It is a city of from fifty to sixty thousand inhabitants; it has no mines on which to base its prosperity, but is devoted to manufacturing, having been famous for 200 years and more for its production of cotton goods. The largest cotton-mill in Mexico is at Queretaro; it is known as the Hercules, and stands in a ravine, about two miles from the city. It was built by

Señor Rubio, is enclosed by a high wall loop-holed for musketry, and could stand an ordinary siege very fairly, provided the besiegers brought no cannon. A defensive force of forty soldiers is maintained at the mills, and they are armed with rifles and howitzers.

The Hercules mill employs about fifteen hundred operatives, all Mexicans, with the exception of a few foreigners to look after the general management of details and keep the machinery in order. Not far from it is a smaller and older mill, which is surrounded with pretty gardens that require a considerable annual expenditure to keep them in order. Frank thought he would commend the plan to American mill-owners, and suggest the addition of gardens to their establishments; Fred was of opinion



A COTTON FACTORY, QUERETARO.

that the manufacturers of Lawrence and Fall River would not look favorably upon the suggestion, as they were much more interested in making the best possible showing in their bank accounts than in beautifying their surroundings.

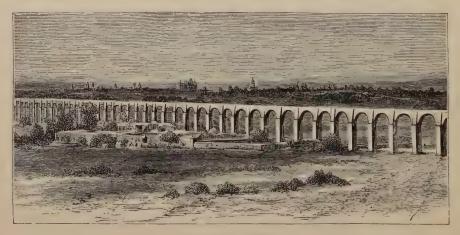
The Queretaro mills are chiefly employed in turning out *mantu*, a variety of cheap cotton cloth, out of which the garments of the lower classes of the population are made. The Hercules mill makes 6000 pieces of cloth thirty yards long every week, and it pays the weavers about one cent a yard. The employés make from two and a half to five dollars weekly, and are furnished with lodgings, at very low rentals, close to the mills. They work from 6 A.M. to 9.30 P.M., with half an hour's intermission for breakfast, and an hour for dinner.

CHAPTER VIII.

AQUEDUCT AT QUERETARO.—THE RESULT OF A BANTER.—THE HILL OF THE BELLS.

—PLACE WHERE MAXIMILIAN WAS SHOT.—REVOLUTIONS IN MEXICO.—FOREIGN INTERVENTION.— MAXIMILIAN BECOMES EMPEROR.—THE "BLACK DECREE."—WITHDRAWAL OF FRENCH TROOPS FROM MEXICO.—MAXIMILIAN'S DEFEAT, CAPTURE, AND DEATH.—HOW A FRENCH NEWSPAPER CIRCUMVENTED THE LAWS.—PRONUNCIAMENTOS.—JUAREZ AS PRESIDENT.—THE ABRAHAM LINCOLN OF MEXICO.—A WONDERFUL PROPHECY.—PERSONAL APPEARANCE OF JUAREZ.—RELIGION IN MEXICO.—FORMER POWER OF THE CATHOLIC CHURCH.—THE LAWS OF THE REFORM.—PROTESTANT CHURCHES AND PROTESTANT WORK.—MISSIONARY MARTYRS.—MURDER OF REV. J. L. STEPHENS.—RELIGIOUS AFFAIRS AT PRESENT.

ONE of the first things to attract the attention of the youths was the aqueduct by which Queretaro is supplied with water. They learned on inquiry that it was built by one of the citizens at an expense of half a million dollars; the story goes that it was the result of a banter between



AQUEDUCT OF QUERETARO.

him and another wealthy Mexican, one offering to supply the city with water if the other would build a shrine and saint of solid silver. The offer was accepted, and the agreement carried out by both parties.

The water comes from a mountain stream five miles from the city, and

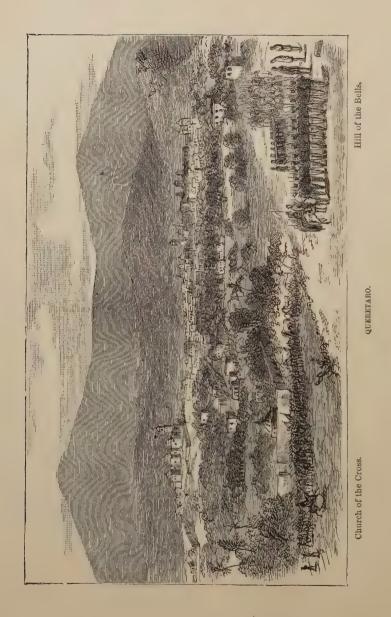
is brought through a tunnel, and afterwards along a series of arches, some of which are ninety feet high. It was finished in 1738, and has ever since supplied Queretaro with an abundance of water.

The most interesting sight of Queretaro is the Cerro de las Campanas, or Hill of the Bells, and thither our friends proceeded as soon as they had partaken of the mid-day meal, which was ready on their arrival at the hotel. There is a fine view from the hill, and they greatly enjoyed it; but they were more interested in the spot where the last Mexican empire came to an end. Three black crosses mark the place where Maximilian and his generals, Miramon and Mejia, were shot on the morning of the 19th of June, 1867. This was the last scene in the drama of the imperial monarchy which Louis Napoleon sought to found in North America at the time of the American Civil War.

Frank and Fred had already familiarized themselves with the history of Maximilian's career in Mexico. Frank had committed a portion of the story to paper, and with Fred's assistance it was completed during their stay at Queretaro, and mailed homeward with their next batch of letters. Here it is:

"From the time Mexico established her independence of Spain down to 1860, there was a bitter hostility between the two parties into which the influential portion of the population was divided—the Conservative or Church party, and the Liberals. The Conservatives represented the Catholic Church, whose religion was brought to Mexico by the priests that accompanied Cortez and sought to convert the people from paganism. They succeeded in great measure, and as long as the Spaniards were in power the Church was in full control. It possessed a great part of the wealth of the country; the most moderate estimate is that one-fourth of all the property in the country belonged to the Church, and some authorities say that the proportion was far greater.

"When independence was established, the Liberals began active opposition to the Church party, and the country was hardly ever at peace from one end to the other. Revolutions followed each other with great rapidity. Several Presidents were not allowed to enter upon the duties of their office at all, and the first President to complete the full term for which he was elected was Benito Juarez. Historians are not agreed as to the number of revolutions that have taken place in Mexico; but it is safe to say that they were not fewer than thirty-six in the limit of forty years, most of them being accompanied by bloodshed. In that period there were no less than seventy-three rulers, nearly all of them exercising very brief authority, and some none at all.



"As time went on, the hostility of the Church and Liberal parties to each other grew more and more bitter, till it culminated in the War of the Reform, between 1855 and 1858. In 1859 President Juarez proclaimed the famous Laws of the Reform, which forbade priests to appear in public wearing their robes of office, suppressed the monasteries and convents, and gave the property of the Church to the Government. The value of this property is said to have been more than \$300,000,000. The Liberal army captured the capital city six months after the proclamation of these laws, and they were immediately put in operation, and with great severity.

"The country was deeply in debt, and in 1861 the Liberal Congress passed a law suspending payment of the interest on its foreign debt. This gave England, France, and Spain an excuse for sending a naval and military force to Mexico; they captured Vera Cruz, and then an arrangement was made which caused the withdrawal of England and Spain; but France remained, and was evidently determined to conquer the country. The French advanced towards the capital, which they captured June 9, 1863. There were 40,000 French troops in Mexico, and they were joined by a Mexican force which was in the interest of the Church party.

"In July a congress of Mexican notables proclaimed that the Government of Mexico should be an hereditary monarchy, under a Catholic prince, and offered the crown to Maximilian, brother of the Emperor of Austria. Maximilian accepted the offer, and came to Mexico with his wife, Carlotta; they arrived in July, 1864, and were crowned Emperor and Empress of Mexico, in the great cathedral of the capital city. The Emperor selected Chapultepec as his imperial residence; a fine avenue was laid out from the castle to the city, trees were planted, streets were improved, and for a short time it seemed as if peace and prosperity were coming to Mexico.

"Juarez was still President of the Republic; he and his army were driven far to the north, but they continued to fight, and in October, 1865, Maximilian signed an order which became known as the 'Black Decree,' condemning all Republican officers captured in battle to be shot as brigands. Many of them, including several generals and colonels, were shot accordingly, and this act exasperated the people.

"The American Civil War had ended; the United States Government put 60,000 troops along the western frontier of Texas, and then intimated that the French forces must be withdrawn from Mexico. The diplomatic correspondence lasted six months, and our Government threatened armed intervention unless the French troops were recalled. They were withdrawn; Maximilian had no foreign support, and his own army could not cope successfully with the Republican forces. Juarez, with his army, ad-

vanced towards the south, and the Imperial army marched to meet him, and was defeated. A Republican army, under General Diaz, captured Puebla, and put the Imperialists to flight.

"Carlotta went to France, and vainly besought Louis Napoleon to continue his aid and keep a French army in Mexico. Then she asked the



A MEXICAN CAVALRY SOLDIER.

Pope to exercise his influence, and finding that was of no use, she became hopelessly insane. Maximilian started for the coast, intending to leave the country; unwisely for himself, he changed his plans, and joined General Miramon at Queretaro, where there were 5000 Imperial troops. Queretaro was besieged by 20,000 troops, under General Escobedo; the siege

lasted two months, and ended on the 15th of May, when the key of the position was captured, and the Emperor and his army surrendered. The Emperor was taken on the Hill of the Bells, the very spot where he was afterwards shot by order of the court-martial which condemned him to death."



A MEXICAN INFANTRY SOLDIER.

"A very concise history of the events of that time," said Doctor Bronson, when Frank paused in reading their joint production; "have you anything more to add to it?"

"Yes, sir, we have," was the reply. "We have thought that the story of the court-martial, and the last days and hours of Maximilian, would be interesting, and ought to form a part of our narrative."

"That is quite right," the Doctor answered, "and if you have not finished it I will hear it some other time."

On a subsequent occasion Fred presented the following, which was heartily approved by Doctor Bronson as deserving a place in the narrative of their journey through Mexico:

"Maximilian was condemned to death on account of the 'Black Decree,' and the officers who had carried out his orders were sentenced to the same fate. The wife of General Miramon went to San Luis Potosi to intercede with President Juarez for her husband's life. The Princess Salm-Salm went at the same time to do a similar service for Maximilian. The princess, in the account of her interview, says: 'I saw the President was moved; he had tears in his eyes, but he assured me in a low, sad voice, "I am grieved, madame, to see you thus on your knees before me, but if all the kings and queens of Europe were in your place, I could not spare that life. It is not I who take it, it is the people and the law; and if I should not do its will, the people would take it, and mine also."

"Miramon's wife told a similar story about the wish of the President to be merciful and reprieve her husband. She says he was wavering when his Minister of Foreign Affairs said, 'It is to-day or never that you will consolidate the peace of the republic.' Then the President told her as gently as he could that it was impossible to grant her request.

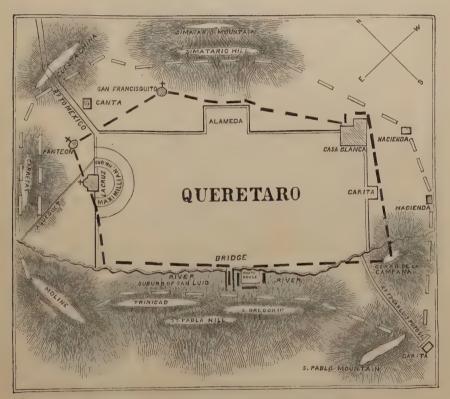
"The Government of the United States asked that Maximilian's life be spared, and the Emperor of Austria sent a similar request, but all to no purpose. On the morning of the execution Maximilian rode in a coach with his confessor from the prison to the Hill of the Bells, and Miramon and Mejia, with their confessors, followed in another coach. An adobe wall had been built up for the occasion, and the three men were placed in front of it, and about ten paces from the firing party. Maximilian held a crucifix in his hand, and looked intently upon it as the order to fire was given. The President caused the remains of the ill-fated Emperor to be carefully coffined, and they were sent home to Austria for interment in the Imperial vault of the Hapsburgs.

"President Juarez entered the city of Mexico on the 15th of July, less than a month after Maximilian's death, and carried with him a train of provisions for the relief of the suffering inhabitants. Great leniency was shown to all who had served under Maximilian; nineteen of the officers who had committed crimes or deserted from the Republican army were shot, others were imprisoned, and some were ordered to leave the country under pain of imprisonment in case they returned. The rank and file of the soldiery were sent to their homes or incorporated into the na-

tional army, and the President did everything in his power to bring peace to the country; and since that time Mexico has been a peaceful land compared with what it had been for the preceding forty years."

When Fred completed the reading of his story Doctor Bronson said he was reminded of an incident that happened at the time of the execution of Maximilian.

"I was in Paris," said he, "when the news came that the execution had taken place. The French papers were not allowed to make any comment upon the affair, except to execrate it and denounce the Mexicans in



LINE OF DEFENCE HELD BY MAXIMILIAN DURING THE SIEGE.

the bitterest terms. Louis Napoleon would have caused the immediate suspension of any paper that uttered a word in sympathy with the acts of Juarez.

"One of the liberal papers managed very skilfully to get around the prohibition. It printed the telegram announcing that Maximilian had

been shot by order of a Mexican court-martial, and directly beneath the telegram it printed the 'Black Decree' of October, 1865, to which you have alluded, and with it two letters written by Maximilian's victims just before they were led to execution. The decree and the letters were copied from the French official newspapers, and therefore they could be printed without risk of interference. There was not a word of editorial comment, nor was any needed."

"We said there had been peace in Mexico since the fall of the Empire," continued Fred, "but our words deserve to be qualified. There have been disturbances at different times and in various parts of the country. In 1871 there was something that almost threatened civil war in the shape of a pronunciamento by General Diaz, and for a while things had a serious aspect. General Diaz did not like the election of Juarez for a third time; he proposed an assembly of notables to reorganize the government, and that he (Diaz) should be commander-in-chief of the army until the assembly had done its work. This would have been practically equivalent to making him President, but the whole scheme was ended by the sudden death of Juarez in July, 1872.

"Lerdo de Tejado then became President, and for three years everything was peaceful. Then came another revolution, which drove Lerdo from the capital and installed Diaz in the Presidential chair. At the end of his term Diaz was succeeded by General Gonzales, who was a poor man when he became President, and a very rich one when he left the office. He left it peaceably, and was succeeded, December 1, 1884, by Diaz, who has shown himself a man of ability, and has managed the affairs of the country very creditably.

"There you have Mexican history boiled down," said Fred. "Perhaps it may be tedious to some of the boys at home, and if it is, they know how to skip."

The conversation that followed this reading naturally turned upon Mexican affairs. Doctor Bronson signified his readiness to answer any questions the youths might ask, or, if he did not know the correct answers, he would try to tell them where the desired information could be obtained.

"President Juarez was a native of Mexico, and not of Spanish descent, was he not?" Frank asked.

"Yes," said the Doctor; "he was a full-blooded Indian, his parents having been people in very humble circumstances. He has been called the Washington or the Lincoln of Mexico; to him Mexico owes the Laws of the Reform and the concessions that have brought railways into the country and opened it up to commercial relations with the rest of the

world. He was the first Protestant President of the country, all his predecessors having been of the Catholic faith. He is described by those who knew him as a man rather below the average height, stoutly built without being corpulent, exceedingly plain in dress, but always fastidiously neat. Ordinarily he wore a dress-coat of black broadcloth, with other garments to match, and on state occasions he substituted white gloves and cravat for the every-day black ones. He used to ride in a plain coach, with no liveried servants, which was quite a contrast to the grand turnout of Max-

imilian, who had a state carriage like that of Louis XIV.

"His complexion was Indian, and so were his features: his eyes were small and black, and his face, which was always clean-shaven, bore an expression of great firmness. He was not talkative, and was the same determined, silent man in prosperity as in adversity. His faith in the success of the republic was never shaken, even when he was living in an adobe hut on the banks of the Rio Grande, with less than 500 follow-



FIRST PROTESTANT CHURCH IN MEXICO.

ers, and a reward offered by Maximilian for his head. When he arrived at El Paso del Norte he was accompanied by only twenty-two friends, who have since been called 'the immaculate.'

"I have read somewhere," * continued the Doctor, "a curious story connected with his history. When Mexico was conquered by the Spaniards, a priest of the Aztec temple at Taos, in New Mexico, kindled a fire upon its altar, and planted a tree in front of the edifice. He prophesied

^{*} In "Our Sister Republic," by Albert S. Evans, p. 305.

that when the tree died a new white race would come from the East and conquer the land, and when the fire went out a new Montezuma would arise and rule Mexico. The tree died in 1846, during our war with Mexico, and the fire went out when the last of the Aztec priests of Taos died, in the year that Juarez became President."



PUEBLO AT TAOS, NEW MEXICO.

"Was he ever imprisoned or banished, like the most of the leading men of Mexico?" Frank asked.

"Yes," was the reply. "He was a native of the State of Oajaca, where he was educated in a seminary and studied law; he graduated with high honors at the college, and for some years held the chair of natural philosophy in that institution. In 1836, when he was thirty years old, he was imprisoned by the Conservatives on account of his Liberal principles. After his release he became Chief-judge of the Republic, and held several other offices until 1853, when he was imprisoned and banished by General Santa Anna, and lived two years in the United States, suffering severe privations. Events brought him into Mexico again, and from that time he did not leave the country until his death. He was imprisoned a third time, in 1857, by Comonfort, but only for a short while."

"We have mentioned the Laws of the Reform, which were proclaimed by President Juarez and caused the appropriation of the property of the Church by the Government. Did the Church have much property besides the convents, cathedrals, and Church buildings generally?" "A great deal more than those," the Doctor answered. "The Church owned real estate in vast extent both in the cities and the rural districts, and some people say more than half the dwelling-houses in the city of Mexico belonged to it. It had the reputation of being a very generous landlord, as it rented its houses at a lower rate than similar property could be had from private owners. On this subject I will quote from an English writer who spent some time in Mexico a few years ago."

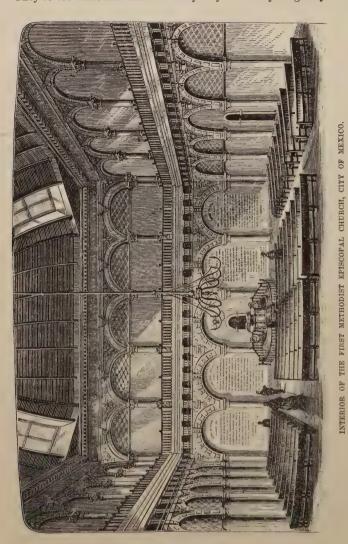
Thereupon Doctor Bronson read the following from "Mexico To-day," by Thomas U. Brocklehurst:

"'The Church of Mexico has been all-powerful since its commencement; it may be said to be the Government, the magistracy, the army, and the master of the homes. Every-



GARDEN OF A MEXICAN CONVENT.

thing in Mexico has been subservient to its dictatura. The priesthood has been entirely free from the national courts of law, they have had courts of their own, and the *fueros*, or privileges of the ecclesiastics, placed them entirely beyond the reach of secular power. They levied taxes and tithes of everybody and everything they had a mind to. The ex-



tent to which the clergy accumulated wealth is almost incredible: they are said to have possessed three-fourths of the whole property of the country, consisting of lands and other real estate, rents, mortgages, conventual buildings. church ornaments. Moreover, there were no bankers in Mexico except the clergy, so they had complete power over the estates as well as the souls of the people.

"'In 1850 Señ or Lerdo de Tejara, Minister of Public Works, published a statistical account of the revenues and endowments the Church, with the numbers of the clergy, monks. nuns, and servants connected with the religious establishments. The details he gives, like the evidence of the

existing churches, and the remains of the disused ones all over the country, quite support his statement that the Church was possessed of three-fourths of the property of the State.'

"Another writer," continued Doctor Bronson, "says that the property of the Church included about 900 rural estates and 25,000 blocks of city

property. When this property was confiscated and sold, the Church authorities warned all good Catholics not to invest in it. The result was that it went at very low prices, and fell into the hands of those who cared nothing for the religion of the former owners. The Church people probably see by this time that they made a mistake. Had they allowed Catholics to buy the confiscated property, they could have got it back again into their own hands with very little trouble, and at a small valuation. Dwelling-houses, shops, and all sorts of ordinary buildings, along



REV. JOHN L. STEPHENS, A MARTYR MISSIONARY.

with the rural estates and the convents, have been sold for secular purposes, but the church edifices proper are permitted to remain in the hands of their former authorities, and services go on there without interruption. The Laws of the Reform allow freedom of religious worship, and a Catholic has the same protection as the adherent of any other faith."

"Were there any Protestant churches in Mexico before the Laws of the Reform were proclaimed?" Fred asked.

"No," was the reply; "the Catholic Church did not permit them to

exist any more than the Puritans allowed a Quaker in their midst in the early days of the Plymouth Colony. Human nature is the same all the world over, and any religious body that has supreme control of a country



IN THE CATHEDRAL.

is pretty certain to exercise its power. You know the old explanation of the difference between religion and superstition?"

"What is that?"

"Religion is what we believe; superstition is what others believe."

The boys laughed, and said they had heard the definition before. Then the Doctor continued:

"The Laws of the Reform tolerated all religions, and guaranteed freedom of public worship. During the Mexican War our army was followed by colporteurs, who distributed tracts and did other religious work. They followed the example of the priests who accompanied Cortez, but, unlike them, they did not succeed in converting the population. Missionary work was begun by the American Baptists in 1863, and followed shortly after by the Methodists, Congregationalists, and Presbyterians. There was much opposition on the part of some of the priests,

and in several instances their ignorant followers were incited to hostility. You must remember that the Mexican priests are not as intelligent, taken as a body, as the Catholic priests of the United States; and understanding this, you will not wonder at the open hostility displayed towards all other forms of religion.

"In the early days of the Protestant missions the missionaries in Mexico entered upon their duties at the risk of their lives. In 1872 a missionary and his wife settled in Guadalajara. During the first few weeks of their residence in the place they were stoned whenever they appeared on the streets. The Governor came to their aid, and in time the prejudice against them wore away. In November of the same year another missionary, Rev. John L. Stephens, settled in Ahualuco, a town of five thousand inhabitants, ninety miles from Guadalajara, and began his work. On the

2d of the following March, at two o'clock in the morning, his house was attacked, and he was murdered with a brutality which could not have been excelled by Apaches or Sioux. One of his converts was killed at the same time, and others barely escaped with their lives.

"There have been other martyrs, and many cases of persecution. Hostility has not ceased, but it is greatly diminished, and the Protestants have

obtained a foothold in Mexico. There are not far from 300 Protestant congregations in the country, with 15,000 communicants and 30,000 adherents. There are about 100 foreign missionaries, many of them accompanied by their wives; as many more ordained native ministers; and twice that number of unordained native helpers. There are many day, Sunday, and theological schools, which have been established by the missionaries; and there are printing establishments, which are sending out religious matter for all who are willing to read it. There are more than fifty church edifices, some of them built expressly for the purpose, the others being old structures altered for Protestant use."

In closing this talk on religious matters, Doctor Bronson remarked that it would take many years for the quarrels between the Church party and the Liberals to come to an end; but in the mean while Mexico would continue on her progressive way, and all



MEXICAN PRIESTS.

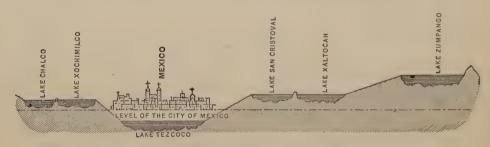
her friends, of whatever creed, would be encouraged to hope for the best results.

CHAPTER IX.

FROM QUERETARO TO THE CAPITAL.—PLAIN OF THE CAZADERO.—TULA.—THE GREAT SPANISH DRAINAGE-CUT.—DISASTROUS INUNDATIONS OF MEXICO CITY.

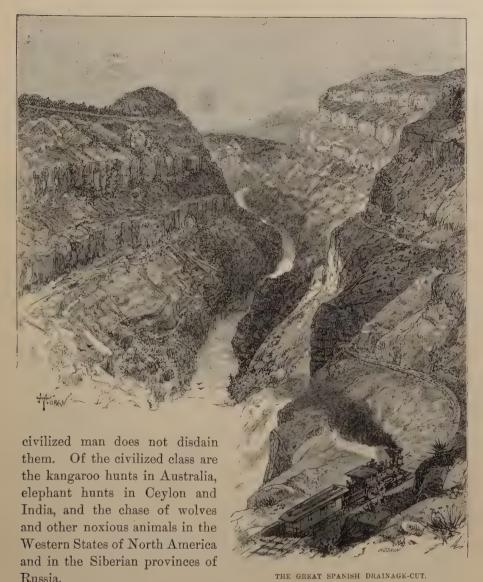
—A PUZZLE FOR ENGINEERS.—ARRIVAL AT THE CAPITAL.—HOTEL LIFE.—RESTAURANTS, AND THE MODE OF LIVING.—AMUSING STORIES OF HOTEL MANAGEMENT.—FONDAS AND FONDITAS.—MEN FOR CHAMBER-MAIDS.—ALMUERZO.—A MORNING STROLL ALONG THE STREETS.—WOMEN ON THEIR WAY TO MASS.—THE MANTILLA.—SELLERS OF SACRED THINGS.—DEALERS IN LOTTERY TICKETS.—LOTTERIES RUN BY GOVERNMENT.—ATTENDING A DRAWING.—HOW THE AFFAIR WAS CONDUCTED.—FLOWER-SELLERS.

FROM Queretaro to the City of Mexico is a distance of 150 miles. The route of the railway lies through a region which is excellent both for agriculture and stock raising. Frank and Fred wished to stop at one of the cattle haciendas, but the Doctor said they would have an opportunity to see one of these establishments at a later date; so they continued to the capital without making a halt after leaving Queretaro.



COMPARATIVE LEVEL OF LAKES.

They crossed the plain of the Cazadero, which obtains its name from an incident of the Conquest. About the year 1540 the Indians organized a great cazadero (hunt) on this plain, to show their good-will towards the first viceroy, Don Antonio de Mendoza. A great number of them assembled, and the game was driven in from all directions and duly slaughtered by the viceroy and his friends. Hunts of this sort are of very ancient date; they are practised by aborigines in all parts of the world, and even



THE GREAT SPANISH DRAINAGE-CUT.

At the edge of the plain of the Cazadero the train reached the foot of the mountain chain that surrounds the valley of Mexico. The locomotive breathed heavily as it ascended the slope dragging its burden behind it. The speed was materially reduced from that by which the plain had been traversed, and the reduction showed very plainly that the grade was steep. Every turn in the road gave a picturesque view, and the youths thoroughly enjoyed their ride towards the famous valley.

The top of the ascent was reached at Tula, of which we shall have something to say later on. Then the train entered a gorge, which Frank and Fred specially wished to look at. It was the Tajo de Nochistongo, the great Spanish drainage-cut, which was intended to save the city of Mexico from inundation.

From the windows of the car they shuddered as they looked into the cut, and wondered if never an accident had happened from the falling away of the earth. The cut is twelve and a half miles in length, and is the work of human hands, not of nature. The railway enters the valley of Mexico through this cut, and the track is laid on a shelf or bench along its sides and high above the bottom. Our friends visited it a few days later, and we will here include Frank's account of what he saw and heard.

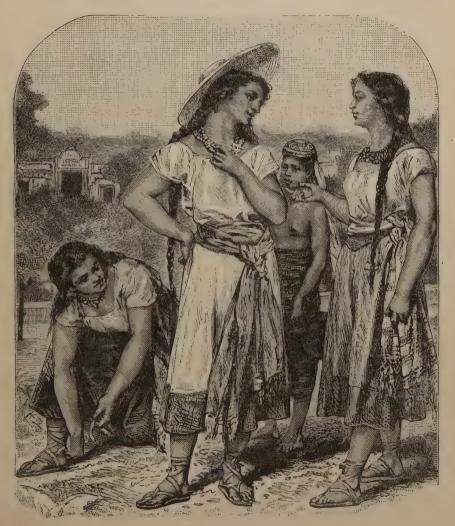
"The city of Mexico stands in a valley which has no outlet, the water that accumulates from the rains being evaporated by the heat of the sun or absorbed in the volcanic soil. The city is in the lowest part of the valley, and is therefore liable to be overflowed whenever the evaporation and absorption are not sufficient to carry off the water that accumulates. There are several lakes that cover a tenth part of the area of the valley. The lowest of them is salt, as it has no outlet, but the others which discharge into it are fresh. This salt lake is called Tezcoco. It has an area of seventy-seven square miles, and its surface ordinarily is only two feet lower than the level of the Plaza Mayor, or great square of the city. In the days of the Aztecs the lake surrounded the city, but it is now three miles away from it, owing to the recession of the waters. Lake Chalco is three and a half feet higher than Tezcoco; while Zumpango, the most northerly of all the lakes, is twenty-nine feet higher than the Plaza Mayor. The lakes are separated by dikes, some of which were built by the Aztecs before the arrival of the Spaniards, but the greater number are of more recent construction, as we shall presently see.

"Now, it is evident that an unusual flood of water could raise Tezcoco so that it would flood the city, and this is what has happened on five different occasions—in 1553, 1580, 1604, 1607, and 1629. The last inundation continued for five years, and caused an immense amount of suffering and loss. The city was covered to a depth of three feet, and the waters were finally carried off by an earthquake, which allowed them to run away through the crevices that it formed.

"Here's where we come to the history of the great cut of Nochistongo. The Spanish Government consulted all the celebrated engineers of the day,

and they presented numerous plans for draining the city and keeping it out of danger from inundations. Enrico Martinez presented the plan which was adopted. It was to drain Lake Zumpango so that its waters would not be poured into Tezcoco, but would run to the Gulf of Mexico by way of Tula. For this purpose he proposed to make a tunnel through Nochistongo, to carry off the superfluous water of Zumpango, or, rather, of the river Cuatitlan, which flows into it.

"The tunnel was commenced in November, 1607, but when completed



YOUNG GIRLS OF TULA.

it was found insufficient to drain the lake, and a new plan was needed. A Dutch engineer was then brought in, and he naturally proposed a system of dikes, similar to those of his own country and the dikes already built by the Aztecs. He was allowed to carry out his scheme until the arrival of a new viceroy in 1628. The new viceroy would not believe the accounts which he heard of the floods that had occurred, and he ordered Martinez to stop up the tunnel and allow the waters to take their original course. He was soon convinced of his error, and ordered the tunnel to be reopened. It was reopened and continued in use until the following June, when Martinez found that it was being destroyed by the pressure of the water, and he therefore closed it to save it from ruin. A disastrous flood followed, and this was the one that lasted five years."

"How did the people get around in that time?" Fred asked.

"They were forced to use boats," was the reply; "but the getting about was the least part of the trouble caused by the flood. Most of the houses were of adobe, and these soon crumbled and fell. The loss was so great that the Spanish Government ordered the site of the city to be changed to higher ground, but on representations by the City Council of the value of the permanent structures which would thus be rendered useless, the order was countermanded. The city was restored after the subsidence of the waters. It has been threatened several times since, but though it has been in great danger the cut and the dikes have saved it."

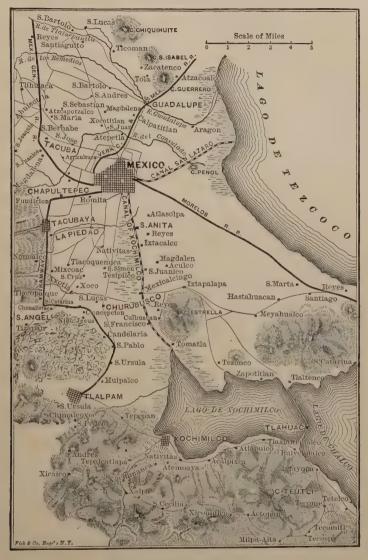
"But how about the making of the tunnel into a cut?"

"They put Martinez in prison as soon as the flood came, and he was kept there for several years. Then it was determined to change the tunnel into a cut, and he was released and put in charge of the work. It took 150 years to make it, and though nominally finished in 1789, it has never been entirely completed. Thousands of Indians died during the work of digging this enormous ditch. It was the greatest earthwork of its time, and in fact the greatest down to the cutting of the Suez and Panama canals. Here are the figures:

"Length of the cut, 67,537 feet; greatest depth, 197 feet; greatest breadth, 361 feet. The original tunnel of Martinez was four miles long, eleven and a half feet wide, and fourteen feet high. Portions of the old tunnel, or rather of its ruins, are visible to-day. There is a monument to the memory of Martinez, which was erected a few years ago in one of the public squares of the capital city; it might possibly console him for his five years in prison if he could only come around and look at it."

As Frank paused, Doctor Bronson took up the subject and said that even with the waters of Zumpango drained away there was still a liability

of the overflow of the lower lakes. He added that numerous projects had been proposed. Some engineers were in favor of drying up Tezcoco alto-



ENVIRONS OF MEXICO.

gether by turning away the waters that flow into it; others advised draining the waters into a lower part of the valley, if such could be found; and others again proposed a long and large tunnel through the mountains at so

low a level that Tezcoco and the city could be thoroughly drained. To this should be added a canal from the upper lakes to flow through the city and wash out its sewers.

"What will be done about it no one can safely predict," the Doctor remarked. "The city is badly drained, its sewage is only partially carried away, and such of it as the water removes is accumulated in Lake Tezcoco, which is becoming dirtier and more shallow every year. No plan has been proposed that has been pronounced successful, or to which there is not a serious objection. Of course almost anything could be done with unlimited money, but Mexico, like other cities and countries, has a limit to the amount that might be expended for any given purpose."

The smells that greeted the nostrils of the youths on their arrival at the capital convinced them that the drainage of Mexico is little better than no drainage at all. Fred remarked that if it were anywhere else than in the very high region where it is (7602 feet above the sea), it would have no need of drainage, as all the inhabitants would die of pestilence.

Emerging from the famous earth-cutting, our friends had their first view of the snowy peaks of Popocatepetl and Iztaccihuatl, the great volcanoes which lie to the east of the city of Mexico. They had read and heard much of these famous mountains, and had formed many mental pictures of them. To the credit of the volcanoes, it is proper to say that they fully came up to the expectations which had been formed of them.

The train sped on over the comparatively level region of the valley. For several miles the Mexican Central Railway lies parallel to the Mexican National line, and as there happened to be a train on the other track, the passengers had the exhilaration of a race as a concluding feature of their journey.

They had left Queretaro a little before noon; it was seven o'clock in the evening when the train rolled into the Buena Vista station outside the city, and the journey over the Mexican Central Railway came to an end.

Doctor Bronson had telegraphed for a courier from the Hotel del Jardin to meet them at the station, and the man was there in accordance with his request. The key of one of the trunks was given up to meet the requirements of the local custom-house, after the manner of the octroi of Paris and other Continental cities. Our friends had found this regulation at all the towns where they had stopped on their route, but the trunks had invariably been passed without being opened, on the assurance that they contained no merchandise.

The Hotel del Jardin proved to be quite satisfactory, so far as the

rooms were concerned, but there was not much to be said in favor of the supper to which the travellers sat down, after removing the dust from

their garments and making themselves generally presentable. The boys ascertained on inquiry that the hotel was built around the garden of an old convent, and that a portion of it was really the convent edifice. Some of the rooms are the former cells of the monks, and the youths concluded that the monks were very comfortably lodged.

If all stories, or even a quarter of those that are told, are true, the Mexican monks had an easy life of it whenever so inclined. No one doubts that there were many honest and conscientious men among them, but there is also little, if any, room for doubt that a great many men entered the monasteries with hardly a spark of religious feeling about them, solely for the purpose of getting a living without working for it. The number of idlers among them was fully equal to the proportion to be found in the ministry of the Church of England. A union of Church and State, whether Protestant or Catholic, is certain to develop a large number of adherents, who live in idleness at the expense of others, and bring discredit upon honest and zealous workers.

During their stay in the city of Mexico our friends found that it was the better plan not to stipulate to take their meals in the hotel where

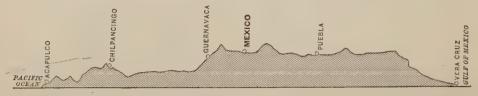


A MEMBER OF THE CHURCH PARTY.

they had their rooms. They breakfasted, dined, and supped wherever they pleased, and found the arrangement very satisfactory. In this way they

tried all the restaurants, from the most pretentious to those of the second and third grades, and found the experiment an interesting one. Here are Fred's notes upon hotel life in the capital:

"We have visited all the hotels, and find them pretty much alike. As far as we can ascertain, we could not improve our condition by changing from the Hotel del Jardin, and so have concluded to stay where we are.



TRANSCONTINENTAL PROFILE OF MEXICO.

We have dropped somewhat into the fashion of the country—you know we always do so when it is at all possible—but not altogether. We rise about six in the morning, and have chocolate and a roll or two at seven, and then we go out sight-seeing, shopping, or write letters until eleven, when we have almuerzo, which is a solid meal corresponding to the French déjeûner à la fourchette. So far we are in the line of the Mexicans; this is their only solid meal, and late in the day they have chocolate and some light refreshment just before going to theatre or opera. We have so long been accustomed to at least two meals a day that we take a second one similar to the almuerzo somewhere about six o'clock. They tell us that it would not have been easy to obtain this second meal ten or fifteen years ago, but so many foreigners have come here of late that the restaurants are accustomed to it, especially those patronized by foreigners.

"They tell some funny stories about the hotel customs here. One is that the advance agent of an excursion party went to a hotel and asked the price of rooms.

"'Two dollars a day,' was the reply.

"'I have a party of sixty people,' said the agent; 'what terms will you make?'

"'It will be two dollars and a quarter a day for each one,' said the landlord; 'sixty people will make a great deal of trouble.'

"Another story was told by a gentleman who came to the city some years ago and met a friend who had arrived one day before him. They left together, and when they came to settle their bills the one who came first, and had been there fourteen days, was charged for two weeks, at ten dollars a week, twenty dollars. The other was charged two dollars per day for thirteen days, twenty-six dollars. He protested, and in reply to his protest the landlord explained that when a patron was there four-teen days or more he was allowed weekly terms, but under fourteen days he must pay by the day. 'Stay here another day,' said the landlord, 'and your bill will be twenty dollars.'

"'Very well,' the stranger answered; 'I'll hold my room till to-morrow, but as I have the money in my hand I may as well pay you now.'

"The landlord accepted the money, made out a bill for twenty dollars, and receipted it. But when he found the gentleman was really going away immediately, he protested that the stranger would not be entitled to weekly rates unless he actually occupied his room that night!

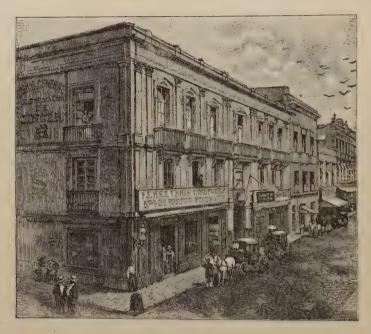


INTERIOR COURT-YARD OF A MEXICAN HOTEL.

"All the chamber-maids here are men; we have an Indian mozo to look after our rooms, and have not seen a woman about the house since we came here, either as house-keeper, chamber-maid, or laundress. On each floor there is a *muchacho*, who takes charge of the keys and is supposed to be responsible for the safety of our belongings; and I'm glad to say we have lost nothing during our stay. The mozo and muchacho both

expect a financial remembrance, and so do the waiters in the restaurants. Their expectations are very reasonable, and they receive their gratuities with a quiet dignity that is far preferable to the manner of the attendants of hotels and restaurants in London or Paris.

"The almuerzo, which I mentioned as the heavy meal of the day, is so important that the business houses and banks close from noon till halfpast two or three o'clock, when everybody is taking breakfast, dinner, and



STREET VIEW IN THE CAPITAL.

supper all in one. It is necessary to transact in the forenoon any business that you have to do, as it is not at all certain that men will get back to their offices again in the afternoon. The leisurely ways of the Mexicans are not at all satisfactory to the impetuous citizen from the Northern States of the Union.

"The prices of the restaurants seem to us not much, if any, behind those of Europe and of New York and Chicago. The table-d'hôte dinner at the best restaurants is one dollar, and sometimes more; but we have found a restaurant, the Café Anglais, where the head-waiter speaks English, and the manager seems to be specially desirous of attracting American custom. At this restaurant the charge is one real for the seven

o'clock breakfast of chocolate and bread, and five reals for the eleven o'clock breakfast; dinner is five reals; and all three of the meals are furnished for thirty dollars a month, or one dollar a day. Of course we do

not want board by the month, nor to go among Americans, whom we did not come here to see: we have been eating Mexican dishes at the fondas, and for four reals have had excellent meals. Fonda means restaurant, and fondita means café; fonda also means hotel, and a hotel for travellers only. There is another kind of hotel or inn, for horned cattle and horses as well as for human beings; establishments of this kind are called mesones or posadas."

Bright and early on the morning following their arrival the youths were out to see the sights of the Mexican capital. They did not wait for the early breakfast, but on hearing the bell from a neighboring church tower they sallied forth in time



ON THE WAY TO MORNING MASS.

to see the streets filled with people on their way to morning mass. Fred made note of the fact that women seemed to be very much in the majority, and he was not surprised to learn afterwards, in conversation with a

gentleman who resided in the city, that religion in Mexico has its greatest hold upon the women. "The men are negligent of, or, as a general thing, indifferent to, religious subjects," said his informant; "and were it not for

the women of Mexico the Church would have very

little hold upon the population."

The ladies were in mantillas, which are the rule of society for morning mass, though not for promenades at later hours of the day. Since the influx



A MODERN STREET FRONT.

of foreigners, in the last decade or so, the fashions of Mexico have undergone a change, and steadily approach the Parisian. But the mantilla still holds its place for morning mass, and will probably do so for a long while. Of course the priests might change it if they desired to do so, but they are opposed to innovations, and were, speaking generally, bitter opponents of the railway and telegraph. The mantilla is a very becoming outside garment for a pretty woman whose brunette

complexion harmonizes with what she wears. Frank and Fred carried with them for hours, if not for a longer period, the recollection of some of the faces that came within the range of their vision on that morning walk.

They were frequently accosted by the sellers of crucifixes, rosaries, and other things appertaining to the religion which was represented by the people on their way to mass. Evidently the morning is the best time for these venders to dispose of their wares, and they endeavor to make the most of it. Rather incongruously, these dealers in sacred things were jostled by the sellers of lottery tickets; these gentry pursue their avocations at all hours and in all places and are very persistent. They offer to sell you the ticket that will be sure to draw the highest prize, and in every way possible exercise their ingenuity to persuade you to buy. The tickets are of all prices, and one can invest much or little, according to his means and inclination.

Frank investigated the subject of lotteries in Mexico, and found that they were a regular institution of the country; in fact, they are to be

found in pretty nearly all the countries of Spanish America. The Government gives charters to certain associations, and very often runs the lottery itself; the profits are large, and the Government makes a handsome revenue from the business. The sale of tickets amounts to about \$3,000,000 a year in Mexico; and after deducting the value of the prizes and the expense of conducting the enterprise, the net revenue to the Government is not far from \$800,000.

Frank did not invest in the lottery, but he went to witness one of the drawings. It took place in public, and seemed to be perfectly fair. The numbers were drawn from the boxes by blind boys, who were brought from one of the hospitals for the blind, and were accompanied by the professor in charge of that institution. Sometimes, when a blind boy or man



MEXICAN LOTTERY TICKET.

cannot be easily obtained, the drawing is made by an Indian who cannot read; and he is carefully blindfolded, so that there can be no suspicion of fraud.

Judging by the large attendance at the drawing, it is evident that the lottery is very popular in Mexico. Nearly everybody seems to speculate in the tickets, and when the drawing is made and the lucky number announced, there is intense excitement. There is an old adage that lightning does not strike twice in the same place. It would seem as if the proverb

should be reversed, as the story goes that Señor Manuel Garcia, the owner of a hacienda near Manzanillo, won the highest prize in the great National Lottery three times in succession.

Flower-sellers were out in goodly number when the youths took their morning walk, and the wares they offered were fresh and attractive. We have already seen the fondness of the Mexicans for flowers, as shown at Monterey and elsewhere in the north. The city offered no exception to the rule, and the size and beauty of the bouquets, combined with their low price, were calculated to astonish the visitors. For twenty-five cents Frank bought a bouquet, which he sent to Doctor Bronson's room. It was about two feet high and the same in diameter, and was composed principally of roses of a dozen varieties. While Frank was paying for his purchase 'Fred sniffed at it, and was surprised to find that in spite of their beauty the roses had hardly any perfume. On inquiry, he learned that this was the case with nearly all flowers in the Valley of Mexico, and was supposed to be due to the rarity of the air.

"We had some difficulty at first," said Fred, "in finding our way about the city, for the reason that the names of some of the streets change at each block. This plan, which is very annoying to a stranger, and even to a resident, is being given up; and they told us that in a few years they hoped to abandon it altogether. Just think what New York or Boston would be with such a system as this!"



FLOWER-GIRL.

CHAPTER X.

THE CATHEDRAL OF MEXICO.—SITE OF THE AZTEC TEOCALLI.—HUMAN SACRIFICES.—PANORAMA OF THE VALLEY OF MEXICO.—EXTENT AND COST OF THE CATHEDRAL; CHAPELS AND ALTARS.—TOMB OF ITURBIDE.—THE CAREER AND TRAGIC END OF ITURBIDE.—THE RICHEST ALTAR IN THE WORLD.—GOLDEN CANDLESTICKS A MAN COULD NOT LIFT.—THE AZTEC CALENDAR—STONE; ITS INTERESTING FEATURES; INSCRIPTION ON THE STONE.—BRIEF ACCOUNT OF THE AZTECS.—THE TRIBE CALLED MEXICANS.—AZTEC LAWS AND CUSTOMS.—PREVALENCE OF THE DEATH PENALTY.—AZTEC POSTING SYSTEM.—PICTUREWRITING.—FLOWER—SHOW IN THE ZOCALO.—A FASHIONABLE ASSEMBLAGE.—WONDERFUL WORK IN FEATHERS.

"IN Paris," said Frank in his note-book, "the Church of Notre Dame is the first object of interest to the stranger. In Vienna he goes first to St. Stephen's, and in Rome to St. Peter's. So in the capital of Mexico we go first to the cathedral.

"It is a magnificent building, and would do honor to any of the capitals of Europe. The spot where it stands is historic; the Spaniards destroyed the Aztec city that stood here, and built their own upon its ruins, and where now stands the cathedral the Teocalli, or temple of the Aztecs, was formerly to be seen. It is saddening to think of the rivers of blood that flowed here in the sacrifices which the Aztecs deemed necessary to their religious exercises.

"The historical authorities say generally that 60,000 persons were slaughtered in a single year on the altars of the Great Teocalli of Tenochtitlan (the Aztec city that stood here and was destroyed by the Spaniards); most of them were prisoners of war, but when there was not a sufficient supply of prisoners the Aztecs themselves were chosen for sacrifice. The Spaniards may have shown great cruelty in their treatment of the people they conquered, but they did well to put a stop to this terrible shedding of blood in the name of religion.

"The Teocalli was a pyramid of earth, faced with stone, and is said to have been 150 feet in height. Steps led around and up its sides, and they were so arranged that in mounting to the top the pedestrian made a complete circuit of the structure. On the summit was the sacrificial altar, and this is supposed to have been very nearly where the centre of the cathe-

dral is at present. The sacrificial stone from the Teocalli is now in the museum; it is shaped like a millstone, is three feet high by nine in diameter, and is elaborately carved on the sides and upper surface. There is a bowl in the centre, and a gutter leading from the bowl to one side to permit the flow of blood from the victims.

"But we are wandering from the cathedral in considering what preceded it. The Teocalli was destroyed, and the materials were used for filling up the neighboring canal; then a small church was erected, and fol-



THE CATHEDRAL, CITY OF MEXICO.

lowed by a larger one, and this again was removed in 1573 to make room for the present cathedral, which was completed ninety-four years later at an expense of \$2,000,000. It stands on the eastern side of the Plaza Mayor, and is a very conspicuous object in the panorama of the city. Like most Catholic cathedrals, it is in the shape of a cross, its greatest length being 426 feet, and its greatest width 200 feet. It is 175 feet high, and its towers rise to a height of 200 feet. We ascended to the top of



MOONLIGHT VIEW OF PLAZA AND CATHEDRAL.

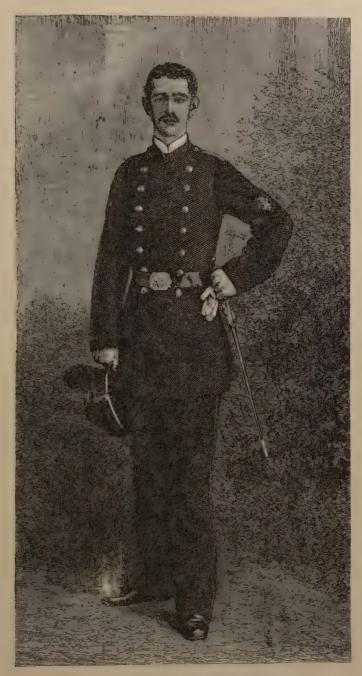
one of the towers, and advise all visitors to the city to do likewise, as they will have from it one of the finest views in the world.

"As we looked from the tower we agreed with Bishop Haven that never did a city have such an environment. The whole city lay below us spread out like a map; there are few chimneys in Mexico, and consequently there was no smoke to mar the view, and we readily traced the streets and avenues, stippled with the green of the squares and gardens that abound so numerously. We looked over the plains and down upon the lakes, and then our gaze swept to the mountains that surround the valley in a jagged chain that covers nearly 200 miles of distance in its girdling course. The snow-covered peaks of Popocatepetl and his sister and companion, 'The White Woman,' seemed to rise higher than we had before seen them, and added a solemnity to the picture in addition to that which it already possessed. North of the city rises the hill on which is built the Church of Guadalupe, and on the west is that of Chapultepec. As we looked on the latter we thought of the heroic attack upon the fortress by the American army in our war with Mexico, while the former secured our respect as one of the places which are sacred in the eyes of pious Mexicans.

"The \$2,000,000 which I mentioned as the cost of the cathedral were for the walls alone; at one time the wealth of the church, in silver and gold and costly pictures, was something almost beyond calculation, but it has been repeatedly plundered, and the aggregate work of the despoilers has stripped off much of its magnificence, but even now it is very rich, and as long as peace continues is likely to remain so. There are six altars, fourteen chapels, and five naves; there are paintings by famous artists of Spain, and there is a balustrade around the choir which is said to weigh 50,000 pounds, and is so valuable that the church authorities refused an offer to replace it with a balustrade of solid silver of equal weight. The balustrade was made in Macao, China, and is of tumbago, a composite of silver, copper, and gold. It was brought to Acapulco, and transported thence on pack-mules to this city.

"We visited the chapels in which the remains of some of the great men of Mexico are buried, notably the chapel of San Felipe de Jesus, which contains the tomb and monument of the unfortunate Iturbide, the first emperor of Mexico. On the monument he is called 'The Liberator,' and we are told that his birthday is remembered and honored, as it justly deserves to be. We haven't yet told you who Iturbide was.

"He was born in 1783, his parents having come from Spain shortly before his birth, and settled at what is now Morelia, in Mexico. He became



AUGUSTIN DE ITURBIDE, GRANDSON OF THE LIBERATOR.

a soldier, and fought in the wars against the revolutionary movements in the first fifteen years of the present century. In 1816 he went into private life, having been dismissed from the service in consequence of quarrels with men high in power; then he began to dream of securing the independence of Mexico; and when the revolutionary movement became general in 1820, he joined it. He was soon at the head of the army, the revolution succeeded, independence was acknowledged, and Iturbide was proclaimed Emperor May 18, 1822, and crowned on the 21st of the following July.

"But peace did not follow his coronation. There was a new revolution, with Santa Anna at its head, and Iturbide was forced to abdicate the throne and leave the country. He went to Italy, and afterwards to England; but in 1824 the desire to regain his crown led him back to Mexican soil, where he had been proclaimed a traitor and an outlaw. He landed at Soto la Marina on the 14th of July, and was arrested. Five days later he was shot by order of the military commander; as he fell he assured the multitude that his intentions were not treasonable, and exhorted them to religion, patriotism, and obedience to the Government. And here his body rests, the judgment upon his conduct having been long ago reversed. His grandson now lives in Washington. Maximilian, being child-less, chose young Iturbide, the grandson, to be his heir to the throne of Mexico, but there is little likelihood that he will ever ascend its steps; the atmosphere of Mexico does not seem favorable to imperial plants.

"In the days of its glory the high altar of this cathedral was the richest in the world. There were candlesticks of solid gold upon it; they were so heavy as to make a load for a strong man, and some were so large that the strength of one man was not sufficient to raise them. The other ornaments and appurtenances of the altar were of corresponding richness and value, some of the crosses, pixes, and censers being studded with diamonds, pearls, amethysts, sapphires, emeralds, and rubies. There was a statue of the Assumption, which was of gold set with diamonds, and is said to have cost more than \$1,000,000. It is gone; and so is a lamp which was valued at \$70,000; and with them many other things of great value have disappeared. Some one says that it cost \$1000 to clean that famous lamp, but the revolutionary troops cleaned it out for nothing. The balustrades of tumbago remain undisturbed, possibly because the real value of that metal was unknown at the time of the looting of the cathedral.

"Like Catholic churches everywhere, the cathedral is always open, and men and women come here for prayer whenever opportunity offers, in addition to their attendance at mass. In nearly every chapel we saw one or more kneeling figures. All classes meet here on common ground; and the poor Indian may be seen worshipping side by side with the richly clad and jewelled lady whose family is of the purest blood of Spain. On great festivals the church is crowded, and the mingling is most indiscriminate. At such times pickpockets are said to abound; and they manage to steal handkerchiefs and purses while kneeling devoutly at the side of those



GRANTING ABSOLUTION IN THE CATHEDRAL.

whose possessions they covet. Mexican thieves are quite adroit, and some of their performances are, professionally considered, worthy of the highest praise.

"Before leaving the cathedral we inspected the famous calendar-stone of the Aztecs, which is in the base of one of the towers. Fred will tell you about it; my business is now with the churches."

Frank added to his notes that in addition to the cathedral there were forty-six large churches in the city, all of them broad and high, and ornamented with domes or towers. One, the Sagrario, adjoins the cathedral,

and is connected with it by a large door; its façade is richly, and, as Frank thought, rather grotesquely carved.

One of the most fashionable churches is the Profesa, which is crowded during Lent with the ladies of the best society, all arrayed in solemn black, in accordance with the church-going custom already mentioned. Our friends went there, and also to the Church of San Fernando, which is near the cemetery, and is the resting-place of most of the illustrious men of Mexico. Generals Miramon and Mejia, who were shot with Maximilian, are



READY FOR MASS.

buried there; San Fernando also contains a monument to President Juarez, which is considered one of the best works of modern sculpture. It was



OLD SPANISH PALACE IN THE CALLE DE JESUS

made by Manuel Islas, a Mexican sculptor. The monumental group is in a small Greek temple, and represents the dead President lying at full length, with his head resting on the knee of a feminine figure, which represents Mexico.

Doctor Bronson and the youths paid a visit one morning to the church where the remains of Cortez the Conqueror rested at one time, and by many are supposed to be resting to-day. It was the desire of Cortez, in case of his death in Europe, to have his bones transported to the New World. They were brought to Mexico in 1629, and rested quietly in this church for nearly 200 years, when they were secretly removed, through fear that the tomb would be violated by the

Revolutionists, who had a bitter hatred of everything Spanish. They were first placed in another part of the church, and then sent to Italy, where they now are. From present indications, the Mexicans are not likely to ask for their return.

When we left the cathedral we gave a glance at the Aztec calendarstone, which Fred was to describe to us. Listen to his account:

"The Aztec calendar-stone," writes Fred, "is exceedingly interesting, both from its historic character and as a work of the sculptor's art. Some say the name is incorrect, and that the stone is not intended for a calendar. We will not enter into the dispute, but accept the name by which

the antiquity is best known. It is of circular shape, eleven feet in diameter, and is said to weigh twentyfive tons.

"A great deal has been written about this stone, and there has been a wonderful amount of speculation and theory concerning it. I haven't space or time to consider everybody's story, and will take that of Señor Chavero, who, as we are told, is one of the best authorities, if not the best of all. Señor Chavero says the stone was engraved in honor of the sun, and for this reason it is often called 'The Stone of the Sun.'

"According to this gentleman's account, the stone was made in the reign of King Axayacatl, about 1479



CHURCH BUILT BY CORTEZ.

of our era, and was originally placed horizontally in the temple of Mexico. When the temple was destroyed by Cortez after the Conquest, the stone lay for a while in the great square. It was buried about the middle of the sixteenth century, and remained beneath the surface of the plaza until 1790, when it was unearthed and placed where it is now to be seen.

"Here is what Señor Chavero says of the meaning of the sculpture on the stone:

"'The face in the centre is the god-star throwing his light on the earth, which is represented by the tongue protruding from his lips. He has the pupils of his eyes turned upward, and they are seen through the sacred mask that covers the upper part of his face. The hieroglyphics on

the diadem encircling the head represent the division of time and the Mexican method of numbering the years. The civil year, like ours, was 365 days. Each four years had different emblems repeated successively, without reference to other chronological arrangements. The first year was called *tochtl*, or rabbit; the second, acatl, or reed; the third, tecpatl, or flint; the fourth, calli, or house. In addition to these periods, the years were arranged by the number of thirteen, four of such periods making fifty-two years, or a Mexican age, when the Festival of Fire oc-



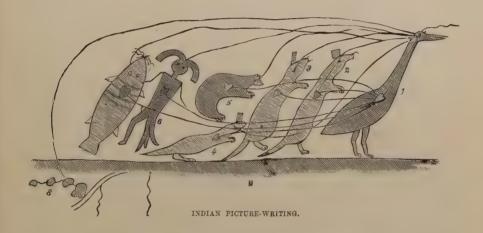
THE AZTEC CALENDAR-STONE.

curred. This was a most serious event for the Mexicans, as the priests taught the people that the world might come to an end and terrible demons would descend from above and eat up mankind.

"'The two claws on the dial at the sides of the mask represent computations of numbers, for which the hand was used in a sort of deaf-and-dumb alphabet. The large V-shaped ornaments denote four equal divisions of the day, and the smaller ornaments of the same shape indicate the division of the day into eight parts. The ornaments lying between the V's represent eight divisions of the night. The twenty ornaments in

panels in the circle inside the V's are symbols of twenty days, or one Mexican month. The rest of the stone is differently interpreted by different writers, but they generally agree that it represents the relations of the months to the year and the years to the Mexican cycle.'

"And here is a good place," said Fred, "to make some notes about the Aztecs. Properly speaking, they were only one of the tribes or nations that occupied the plateau of Anahuac, or Mexico, at the time of the Conquest by Cortez. They migrated from the north, the aggregate time consumed in their migrations being nearly 200 years, and finally settled in the Valley of Mexico, at a spot where they saw an eagle sitting on a cactus and with a snake in his beak. This eagle and cactus have been adopted as the symbol of Mexico, and are seen on the national flag and on the coins.



"The Aztecs found the valley occupied by the Toltecs, who had been there for several centuries. They made war on the Toltecs, took possession of the country, and proceeded to build a city on the site of the present capital. It was called Tenochtitlan ('cactus on a stone'), and the foundations were laid about A.D. 1324. Lake Tezcoco was then much higher than it is now, and the new city was surrounded by water, and greatly resembled Venice in the abundance of its canals. It could only be approached on narrow causeways, and there was a fleet of boats on the lakes which prevented attack by water. With this stronghold as a base, the Aztecs gradually conquered all the surrounding people, so that they had possession of the entire valley at the time of the arrival of Cortez.

"One of the tribes of the Aztecs was called Mexicans, from Mexi, their chief. This tribe seems to have become more powerful than the rest,



TENOCHTITLAN, A.D. 1517.

though originally it ranked as the seventh. It gave the name to the whole people, and from the people the name passed to the country.

"If you think the Aztecs, or ancient Mexicans, were a barbarous people, look at some of their laws and customs.

"They had a complete system of laws, and they had courts in all their cities and towns to administer the laws. They had inns along the roads for the free accom-

modation of travellers, and bridges or boats at the crossings of rivers. Creditors could imprison their debtors; slaves about to be sold might free themselves by seeking refuge in the royal palace; and treason, embezzle-



FIRST CAVALRY CHARGE BY CORTEZ.

ment of taxes, and any crime against the person of the sovereign would cause the death of the offender and all his relatives to the fourth degree. Slander was punished by cutting off the lips or ears, and death was the penalty for robbing in the market, altering lawful measures, or removing the legal boundaries of land. Prisoners of war were devoured, enslaved, or offered as sacrifices; and there were two sorts of prisons: one for debtors and others not charged with capital crimes, the other for condemned criminals and prisoners of war.



A FLOWER-SHOW IN ZOCALO.

"They had no beasts of burden; and when Cortez landed with the few horses that he brought on his ships, he struck terror to the hearts of the people, who had never seen such an animal. All burdens were carried on men's backs, and they had towers erected along the principal roads for forwarding the King's despatches. These towers were about six miles apart, and couriers were always standing ready to receive messages which were brought from the last tower or station by a man running at the top of his speed. Letters were carried three hundred miles in a day by this method. This system is almost identical with that of the great Khan of Cathay, as described by Marco Polo, except that the Khan had his post-stations only three miles apart, instead of six.

"I think I hear you ask something about their language and how they



HOW THE MANTILLA IS WORN.

wrote. Well, they had no written language like ours, with letters and words, but they had a picture-writing, in which everything was represented by drawings and paintings. They had records of this sort of all their history, and their books and papers would have filled a large library, but they were burned by the Spaniards, who thought it a sin to allow these pagan documents to exist. Only a very few of the picture-writings preceding the Conquest have been preserved. When Cortez landed on the coast of Mexico, a full account and description of his ships and men were sent to the King by means of these pictures. The Aztec picture-writings have a remarkable similarity to the hieroglyphics of the ancient

Egyptians, and some writers believe that the Aztecs are the lost tribes of Israel, who wandered to America and brought the Egyptian form of writing with them.

"That will do for the present about the Aztecs," said Fred. "If you want more you must wait a while till I take breath."

Fred made a sudden descent from the sixteenth to the nineteenth cen-

tury, and as he closed his note-book he suggested a stroll to the grand plaza.

Frank assented, and away they went. It was the hour when fashionable people were out for their daily airing, and the display was well worth seeing. There was a flower-show in the Zocalo, a garden in the centre of the plaza. It is not a relic of the Conquest, but of very modern origin, as it was laid out by Maximilian, who had a good eye for the beautiful. Many persons complain of the Zocalo, as it partially obstructs the view of the cathedral.

Frank and Fred found the flower-show very interesting, not only on account of the

floral products which they saw, but also because of the artistic arrangement of the bouquets. Some of the bouquets contained strawberries and other small fruits on account of the contrasts of color, and there were many bunches and baskets with little flags, on which were mottoes, patriotic, sentimental, and otherwise, so that all reasonable tastes could be accommodated. There was a band of music playing, and the fashionable population seemed to have assembled in the Zocalo to see and be seen.

Not the least interesting part of the show was the crowd of promenaders. The ladies were in the fashions of Paris, perhaps six months after the date of their issue in the French capital, and every young lady was accompanied by her duenna, an elderly woman, who never for a moment left the side of her charge, and scarcely removed her eyes from her. Fashionable young, middle-aged, and old men were there, but the younger seemed to be in the majority. Some of them wore the national costume, the trousers and short jacket, ornamented with silver buttons,



THE TROGON.

and the broad-rimmed sombrero, covered with silver braid and embroidery; others had adopted the walking costume of Europe; and from the number of these it was evident that the old fashion is dying out. Frank and Fred thought it a pity that such should be the case, as the Mexican dress is picturesque, and certainly distinctive of its wearers. Some of the ladies were the mantilla in combination with their Parisian dresses, while others had adopted the French bonnet, with all the delicacy of trimming that adapts it for fine weather only.

From the Zocalo the youths wandered to the shops along one side of the square, where they lingered for some time among the curiosities which were exposed for sale. The first thing to attract their attention were the famous feather pictures which are made by the Indians, exactly as they were made in the days before the Conquest. The secret of this work has been handed down from father to son, and is known in its perfection to a comparatively small number.

"We saw some feather pictures," said Frank, "that were marvels of beauty and skill. The brilliant plumage of the paroquet, humming-bird, trogon, and other members of the ornithological family of Mexico, is used for this work, and the colors are as skilfully blended as are the pigments of an accomplished painter. Considering the time required for their production, these pictures are wonderfully cheap, and we have bought several to send as curios to our friends at home. The ancestors of the feather artists of to-day made the famous feather cloak of Montezuma, which excited alike the admiration and the cupidity of Cortez and his companions."



CHAPTER XI.

LOST ARTS IN MEXICO.—GOLDSMITHS' WORK IN THE TIME OF CORTEZ.—SILVER FILIGREE.—MODELLING IN WAX AND CLAY.—NATIVE TASTE FOR MUSIC.—NATIONAL CONSERVATORY OF MUSIC.—MUSEUM OF ANTIQUITIES.—THE SACRIFICIAL STONE.—SACRIFICES AMONG THE ANCIENT MEXICANS.—GLADIATORIAL STONE.—A BRAVE SOLDIER.—OBSIDIAN KNIVES AND RAZORS.—AZTEC METALLURGY.—STATUE OF THE GOD OF WAR.—SHIELD AND CLOAK OF MONTEZUMA.—AZTEC WARFARE AND DOMESTIC LIFE.—RELICS OF HIDALGO AND MAXIMILIAN.—MAX'S STATE COACH.—NATIONAL PALACE.—HALL OF THE AMBASSADORS.—MEXICAN PAINTINGS.—THE MONTE DE PIEDAD.—AN EXTENSIVE PAWN—SHOP.—LOCKING UP MEN AS SECURITY.—FORMALITIES OF THE SALESROOM.

FINE as is the artistic taste of the Indians of Mexico to-day, it is far behind that of the people whom Cortez found there. According to history and tradition, their work in the precious metals surpassed that of any of the goldsmiths of Europe; they fashioned gold and silver into the

shape of plants, birds, fishes, and quadrupeds, and their imitations were marvellously correct in all their details. All this art seems to be lost, with the exception of the working of silver filigree, which still holds high rank. Cortez sent to Spain some exquisite specimens of Aztec work in gold and silver; and the cupidity of the King, impelled by the necessities of the Government, put all these precious works of Occidental art into the melting-pot, the resort of the modern burglar when he wishes to remove the trace of his depredations.

All through their journey in Mexico the youths had been impressed with the little figures, modelled out of wax or clay, representing the various people of the country and their



WAX MODEL OF WATER-CARRIER.

occupations. These statuettes are made by uneducated savages with hardly any tools, colored with native pigments, and baked in the sun or in primitive ovens. Water-carriers, porters, muleteers, mozos of all names and kinds, flower-sellers, beggars, street peddlers, basket-makers—all and many more are represented. The figures are generally covered with cloth



ANCIENT INDIAN POTTERY.

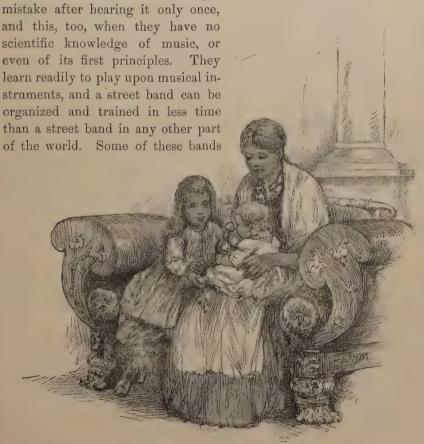
tinted of the appropriate colors; but if not so tinted, the colors are wrought into the plastic material of which the figure is composed. Our young friends bought a goodly supply of these figures, and had them carefully packed for transportation. Fred thought they were fully equal in artistic design and workmanship to any of the figures they had seen in Japan, China, or India representing the trades and occupations of the far East.

Mention has been made of the pottery of the Guadalajara Indians, which is wrought into a great many fantastic forms. These Indians have great ability in portraiture; they will model in a wonderfully short time a statuette of an individual either from life or from a photograph. An enterprising American once planned to take some of these people to the principal cities of the United States and Europe, and open an establishment for the manufacture of statuettes of individuals at ten or twenty

dollars each. His project was not carried out, for the reason that the Indians refused to leave their homes. The native Mexican is averse to changing his residence, and it requires a great inducement to take him away from his native soil.

The women show unusual dexterity with the needle, and their embroidery equals that of the natives of India and other Eastern lands. They display great industry and patience, and while seated in the market-place beside the wares they offer for sale their spare moments are generally devoted to stitching.

"In no part of the world where we have been," said Frank, "have we found a more musical people than the natives of Mexico. They catch on' to a tune or air with great readiness, and gentlemen who live here tell us they have known Indians to sing a common melody through without a



MEXICAN HOUSE-MAID AND CHILDREN.

are composed of boys of about fifteen years of age, and their performances almost invariably excite the admiration of musical strangers.

"We are told that the Government is encouraging the musical tastes of the people by giving free instruction to pupils in the National Conservatory of Music, and supporting them during their studies by small allowances of money. We have heard of pupils that came on foot for hundreds



THE SACRIFICIAL STONE.

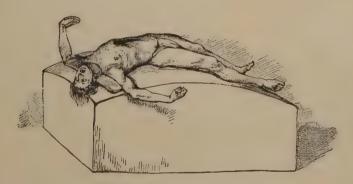
of miles to be musically educated in the capital. In order to secure admission to the Conservatory, they must pass an examination similar to that of musical schools in other parts of the world. Mrs. Gooch, the author of a book on Mexico, mentions two girls who walked from Queretaro to the capital to present themselves as pupils in the Conservatory. She says she heard them sing selections from Italian opera, and the sweetness, strength, and range of their voices were far beyond the average, and produced a profound impression upon the audience."

"Speaking of girls," said Fred, "reminds us that the Mexican children of both the upper and lower classes treat their parents with the greatest respect, and set an example that the children of the United

States might do well to follow. They remind us of Japanese and Chinese children more than of any other we have seen, and are very much unlike the little folks of English-speaking countries in this one particular. Since we eame into the country, whenever we have seen a badly behaved child we have found that he belonged to a foreign family. Old people are invariably cared for by their children, who would suffer all sorts of privations rather than have their parents want for anything they can possibly provide."

Having seen and described the Aztec calendar-stone, Frank and Fred were naturally drawn to the National Museum and to the sacrificial stone, which has been mentioned, and is one of the great attractions of the place.

"It is a block of porphyry," said Fred, "like a huge millstone, three feet high and ten feet across. All around the sides are relief figures representing captives being held by the hair of the head. There are fifteen of these groups, and they are said to represent fifteen victories



ONE FORM OF SACRIFICIAL STONE.

gained by one of the emperors over as many neighboring States. A symbol in the corner of the panel of each group shows what city or State is represented. The stone was made about the year 1486 of our era, but its complete history is unknown.

"Tizoc was the emperor whose deeds the stone commemorates, and it is sometimes called Tizoc's Stone in consequence of this fact. The Stone of Sacrifice is sometimes confounded with the Gladiatorial Stone,

which was generally placed in the courts of the temples, and was the scene of a gladiatorial combat. Mr. Charnay, in 'Ancient Cities of the New World,' says the captive, if a man



SACRIFICIAL COLLAR.

of distinction, was tied to this stone and allowed to fight with several opponents in succession; and if he succeeded in defeating them all he was permitted to escape. They took good care not to let this happen very often, as the numbers were against him; and, furthermore, he had only a wooden sword ornamented with feathers, while his enemies had



THE FORM OF SACRIFICE.

weapons of obsidian, which were sharp as steel. When he was vanquished, as he generally was, he was immediately stretched on the Gladiatorial Stone or on the Stone of Sacrifice. A wooden collar was placed across his neck to prevent his struggling, and five priests held his head and limbs. Then a sixth priest, who wore a scarlet mantle, opened the breast of the victim with a sharp knife of itzli, or obsidian, tore out the heart, held it up to the sun for a moment, and then cast it at the feet of the divinity to whom the temple was dedicated.

"While this was going on the multitude knelt in adoration of the divinity. The body of the victim was thrown down from the stone to the people, by whom it was divided to be served up at their feasts. The difference between sacrifice on the Gladiatorial Stone and the Stone of Sacrifice was that the latter was on the top of the temple, where every-

body could see it, while the former was in the court of the edifice, and only accessible to a select few.

"The same authority," continued Fred, "tells us that the Mexicans were very punctilious about this ceremony even when they were the victims of it. A soldier when captured was reserved for sacrifice. He would consider himself disgraced, and would rather suffer death than be liberated except after a gladiatorial combat. There is a story of a chief who was captured and taken before Montezuma; he had a high reputation as a warrior, and, on learning his name, the King treated him with honor, spared his life, and offered him his liberty. The chief refused the offer, and demanded that he should be devoted to the gods, according to



SCULPTURES FROM TIZOC'S STONE.

custom. After trying in vain to have him change his mind, Montezuma ordered that the chief should be tied to the stone and permitted to fight with some of the King's best soldiers, while the King himself, accompanied by his officers, should witness the combat. The chief killed eight men and wounded twenty; but he was finally overpowered, and carried off to be sacrificed to the war-god Huitzilopochtli."

"But you haven't said what these knives were with which the priests killed their victims," Frank remarked, as Fred paused. "What is obsidian?"

"It is a mineral substance," replied Doctor Bronson, to whom the question was referred, "and is formed by the cooling of the lava from a volcano. When lava cools it forms into obsidian and pumice. Everybody knows what pumice-stone is. Obsidian is a substance hard enough



GLADIATORIAL STONE-FROM AN AZTEC DRAWING.

to scratch glass, and is capable of taking a high polish and a keen edge. The Mexicans called it itzli, and used it for making knives, razors, arrowtips, saws, and other implements."

"Did they have a knowledge of any of the metals besides gold and silver?"

"They had no knowledge of iron, but they made use of copper, and knew how to temper it so as to make it nearly as hard as steel. They used it for many of their implements, but they also had great skill in the use of implements of stone, flint, obsidian, and other minerals. They knew about lead and tin, but made little use of them, copper being their only metal for making into tools. Knives, scissors, and hatchets of copper were abundant. Bernal Diaz, who accompanied Cortez, mentions six hundred hatchets of copper that were paid to the conqueror as tribute by one

tribe of natives. There are scissors in the Mexican museum which are said to contain tin, copper, lead, and platinum, and Humboldt says the Peruvian Indians made use of a similar alloy in making scissors and other implements."



HUITZILOPOCHTLI, THE GOD OF WAR.

Frank and Fred thanked the Doctor for the information they had received, and then turned to contemplate the statue of the god of war to whom the brave chief just mentioned was sacrificed.

"It is a hideous statue," said Fred, "about ten feet high, and appearing

at first glance to be composed of heads and hands. It was found in the great square not far from the calendar-stone, and after close examination we found that it had a skirt of snakes. It was also called the God of Death, and this significance is shown by a skull which is sculptured near the centre.

"Skulls and snakes were favorite objects of adoration with the Mexicans, if we are to judge by the frequency with which we find them displayed. It is said that there was a wall around the principal temple of Tenochtitlan composed of colossal heads of snakes carved in stone; some of these have been found and are preserved in the museum. There is a coiled serpent there, covered with feathers instead of scales; it is carved in stone and is a very creditable piece of sculpture.

"They called our attention to a figure which is called the 'Indio Triste,' or Sad Indian. It seemed to us that the name was not justified, as the Indian was anything but sad. Mr. Brantz Mayer thinks this figure was set on a wall or battlement, and held a candlestick or the staff of a banner in its hand. It was found in the year 1828 in the street that is now called Calle del Indio Triste in commemoration of the discovery.

"Another interesting object was the shield of Montezuma, which has upon it the feather-work for which the people are famous, and also his cloak of the same material. It is evident that the feather-workers, wonderful as they are, have degenerated since the time of the Conquest. They used to make feather-cloth, and we have seen some curiosities in the shape of scarfs, serapes, and rebozos ornamented with feathers, and said to be very old. They make none of these things now, but confine themselves to pictures on cards, where the feathers are made to adhere by means of paste or wax. Each feather is handled separately, and none of the skin is ever applied to the card. You can give them a design and they will fill it up very quickly.

"Well, perhaps we have tired you out among the curiosities of ancient Mexico, and we will turn to more modern things. We could spend hours among the weapons which illustrate the warfare of the ancient Mexicans, and also the implements that reveal their domestic life and ways. Some of the Aztec picture-writings, which we have already mentioned, are to be seen in the museum, and after what we had heard of them we found them very interesting. One of the specimens preserved here is supposed to represent the migrations of the Aztec tribes.

"Among the modern objects is the standard raised by Hidalgo in 1810, in the revolution which ultimately resulted in the independence of Mexico from Spain. The gun, handkerchief, and cane of Hidalgo are also shown,

together with other mementos of that hero. Then there are a portrait of Cortez, and the standard which was carried at the head of his columns in the conquest of Mexico; and there are the armor of some of his companions, and portraits of the successive viceroys that ruled the country by authority of the King of Spain.

"Maximilian has been repeatedly brought to our minds by the relics of his ill-fated reign. Here is his table service of silver; and they tell us that the metal is not solid, but plated. The Mexicans consider it typical of the plated empire which he undertook to set up in America through the aid of the charlatan emperor, Louis Napoleon. His state coach is also preserved and shown to visitors; evidently it is highly prized, as the doors of the room where it is kept are always locked, and a fee is required to



THE NATIONAL PALACE.

open it. The vehicle is the finest in America, and it even surpasses, so it is said, the state carriages of many of the imperial and royal establishments of Europe.

"It is lined with white silk brocade, and the trimmings are of heavy silver thread. The wheels are so thickly gilded that you might suppose

them to be of solid gold, and the body of the coach is dark red in color. The harness is in keeping with the coach, and altogether the vehicle makes an interesting show. We are told that Maximilian negotiated large loans in England to set up his empire here, and that the debt he incurred forms



GEN. MANUEL GONZALES, FORMER PRESIDENT OF MEXICO.

one of the financial burdens now resting on Mexico."

From the museum our friends went to the palace, which occupies the eastern side of the Plaza Mayor, and is said to be the largest building in the city. Before the Conquest, Montezuma's palace stood on the site which fell to Cortez when the conquerors drew lots for the possession of the city of Tenochtitlan, or, rather, the place where it stood. Cortez erected a building here which remained until 1692, when it was destroyed in a great riot, and the present palace was begun. It has been added to from time to time, so that now it is neither symmetrical nor handsome. Several departments of the Government, including the Presi-

dency, are located in the building, and its great extent renders it of decided utility.

"We went through the palace in charge of a guide from the hotel," wrote Frank in his journal, "and found it well worth the time and trouble of a visit. In one respect it reminded us of the Capitol at Washington, as it seemed to be the resort of office-seekers, claim-agents, lobbyists, and all that sort of people which every resident of Washington knows so well and so numerously. They were in all the patios, and in the corridors in all directions. We asked how many rooms there are in the palace, but nobody whom we asked could tell us, and after repeating the question several times we gave it up.

"Some of the rooms are magnificently furnished; they represent, to a certain extent, the varying fortunes of Mexico under different rulers. One room, called the Hall of Iturbide, has its walls hung in crimson damask, and displays the Eagle and Serpent of Mexico; this room is not far from

the Hall of the Ambassadors, the largest room in the palace. It is over 300 feet long, but is narrow in proportion to its length. In this hall we saw portraits of the principal heroes of the Mexican War of Independence, together with portraits of Juarez, Diaz, and other Presidents. They are mostly by Mexican artists, some being well, and others badly, painted.

"At the end of the hall is a painting, twenty-five feet long by ten in height, representing the great battle of Puebla, of May 5, 1862, when the French were so completely defeated—the battle commonly mentioned in Mexican history as the Cinco de Mayo. It is by Miranda, a native artist; and though it is not a fine specimen of painting, it is a correct representation of the ground on which the battle was fought—at least, so a gentleman says who has personally visited it. The scene illustrated in the battle is the turning-point, when a regiment of ragged Indians from Oajaca came into line, drove back the French, and gave the victory to the Re-



COLLATERAL IN THE MONTE DE PIEDAD.

publicans. This battle is regarded as the Waterloo or Gettysburg of the French in Mexico; it sealed the fate of Maximilian's empire and re-established the republic.

"Speaking again of Maximilian reminds us of a room which is on a corner of the palace, so that it has two windows at right angles. This was his favorite apartment, and in the latter part of his reign he used to pace its floor for hours. An English visitor says he could look from it two ways at once, though not the way to hold his throne. One window looks

upon the market-place, and the other on the Plaza Mayor; the room is now the storage-place of relics, no one seeming to care to put it to any other use."

From the palace to the pawn-shop may not seem a very natural step, though Frank said it had probably been taken by more people than would be willing to acknowledge it. Doctor Bronson and the youths took this



TO THE PAWN-SHOP.

step at the city of Mexico, and it was not a very long one either. The Monte de Piedad is not far from the National Palace; it corresponds to the famous Mont de Piété of Paris, and is in most of its features analogous to that French institution. Here is what Fred learned about it:

"It has been in operation for more than 150 years, and was founded by Count de Regla Don Pedro Terreros, whose intentions were purely philanthropic; he endowed it with \$300,000 in the hope of relieving the poor, and those in temporary need of money, from the oppression of the *empeños*, or ordinary pawn-shops.

"According to the rules of the institution, the depositor gets one-third the estimated value of his goods at an interest varying from three to twelve and a half per cent. per annum. He must renew his tickets every eight months, and when he ceases to pay interest upon his loans the goods are kept for seven months, and then offered for sale at an appraiser's valuation. If there is no offer for them in one month, the appraisement is reduced, and

then they are offered for another month. The performance is repeated monthly for six months, and then the goods are sold at auction. If they do not bring as much as the appraised valuation, the appraisers must make up the deficiency out of their own pockets!

"Anything and everything of any value may be pawned here, and the vaults have contained at different times money, jewels, and precious metals sufficient to endow an empire. Not all the property here stored has been pawned. Many valuables are brought here for safety, as the place is a sort of fortress in its way, and most carefully guarded.

"They showed us through the vaults where the diamonds, pearls, rubies, and other precious stones are kept, and we saw more of these costly baubles than we ever looked at before in a single hour. We glanced

through the vaults where pictures, silver plate, watches, clocks, porcelain, and kindred things were stored, and then were taken to the money vaults, which at times have contained millions of dollars in silver and gold. The Monte de Piedad was, until a few years ago, a regular banking institution,



OCCASIONAL PATRONS OF THE MONTE DE PIEDAD.

and its notes were 'good as gold' all through Mexico. Its credit was impaired by the withdrawal of its reserves by the Government, and its banking business received a severe blow.

"Money is not loaned on real estate, or on anything else that cannot be deposited within its vaults. They tell us that a foreign merchant once came here to borrow money for business purposes, and was accompanied by two friends who were to indorse his paper and 'go his security.' The

official into whose hands they fell said the establishment would make the loan at the usual rates, but before completing the transaction he showed the 'securities' the room in which they would be locked up until the note was paid. We did not ask further particulars, but presume the loan was not made.

"The profits of the bank formerly went to the Church, but latterly they have been used for establishing branches elsewhere in the city and all over the country. The Monte de Piedad is a national institution and of great value to the people. One dollar is the smallest amount loaned, and the largest is \$10,000, and the loans are said to average, large and small, about sixteen dollars each. The number rarely falls below 200 loans in a day, and sometimes rises to 2000. About one-third of the articles deposited in the bank are never redeemed.

"Sales of clothing are held on certain days of the month, of precious stones on other days, and of pictures and statuary on others. While we were looking through the room devoted to sales, Doctor Bronson saw an article which he desired, and he at once offered to buy it at the price which was marked upon the card attached to it.

"'I must first offer it for sale,' said the official in charge of the place.

The law requires that I shall do so.'

"So he held up the article and asked if anybody present would give more.

"It happened at the time that there was no one in the room but ourselves and the officials of the bank. The chances of any other offer were not great, as neither Frank nor myself was likely to make a higher bid. After a brief pause he handed the article over to Doctor Bronson and received the money—rather, I should say, he received the money and handed over the article, as the bank does not let anything out of its possession until the cash has been paid into the proper hands."

CHAPTER XII.

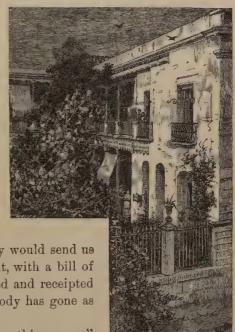
MEXICAN POLITENESS.—FREE GIFTS OF HOUSES AND OTHER PROPERTY.—AWKWARD MISTAKES.—AN ENGLISHWOMAN'S DILEMMA, AND HOW SHE GOT OUT OF IT.—UNCLE FREDDY AND THE GOVERNOR OF ACAPULCO.—THE GREAT MARKET; SIGHTS AND SCENES THERE.—ON THE CANAL.—EXTENSIVE LOCAL COMMERCE.—THE CHINAMPAS, OR FLOATING GARDENS.—AN EXCURSION ON THE LAKES.—SANTA ANITA, A PLACE OF RECREATION.—EXPERTS IN DIVING.—THE HILL OF ESTRELLA.—THE FESTIVAL OF FIRE; PRESCOTT'S DESCRIPTION OF THE FEARFUL CEREMONY.—FISHING IN THE LAKES.—THE AXOLOTL.—FISH OR REPTILE?—FLIES' EGGS AS AN ARTICLE OF FOOD.

"WE have been much impressed and amused," said Fred in a letter to his mother, "with the Mexican, or, rather, the Spanish, forms of

politeness. Whenever we are introduced to anybody, he immediately says, 'Remember that your house is at No. — on —— Street,' notwithstanding that we may have told him we are comfortably quartered at the hotel. In one day a dozen or twenty houses were offered to us; and ever since then, if no more than two or three are tendered between sunrise and bedtime, we think it is a very poor day for business. Sometimes, 'My house and all it contains are

yours.' It would be better if they would send us the title-deeds to the establishment, with a bill of sale of the furniture acknowledged and receipted before a notary; but thus far nobody has gone as far as that.

"It is a form of politeness, and nothing more," the youth continued, "and the people who offer us their houses are about as sincere as Americans



A GIFT TO FRED.

are when they say, 'Delighted to see you,' or, 'Happy to meet you,' to the people they are introduced to in their own country; or as the New York hostess who says to a departing guest, 'Must you go so soon?' when she has really been wondering to herself why the visitor tarried so long.

"It seemed very odd until we got used to it and learned the real meaning of the words, to be told on entering the dwelling of a man we had not known five minutes, 'You are in your own house;' or that we were the masters, and he was the humble guest. Doctor Bronson says they really mean to have us make ourselves at home, and they certainly show great hospitality; but it would be a sad mistake to take them literally and act as though the place belonged to us.

"Every time we admire anything—a piece of furniture, a garment, an article of jewellery or bric-à-brac, or anything else of value—we are immediately told that it belongs to us, and, if it is portable, that we can carry it away with us. If we should be so boorish as to accept the offer, the person who made it would not display any annoyance, however much he

might feel; he is too polite for that.
""What would they do under such circumstances?" I hear you ask.

"What would they do under such circumstances? I hear you ask.

I can best answer by telling a story we heard yesterday.

"An English lady who had just arrived, and had not learned the forms of Mexican politeness, one day admired a set of jewellery, which included a very costly necklace of diamonds and other precious stones that had belonged to the family for two or three hundred years. She was told that the set of jewellery was hers, and believing they meant what they said, she took it away with her when her call was ended.

"Of course the story was at once told to the friend who had made the "Of course the story was at once told to the friend who had made the introduction, and the latter at once went to the guileless stranger and explained the situation. She returned the jewels immediately, with the explanation that, on reaching home, she had found they did not match the dress with which she expected to wear them. She added that she had a fine set of jewellery which she thought would be an appropriate present for one of the young ladies of the family, and she would send it with great pleasure. A polite message was returned declining the offer, and hoping it would be in the power of the family to render the English visitor some distinguished services during her stay in the city. In this way the whole difficulty was bridged over, and the parties were good friends.

"A similar story was told us regarding an American lady who visited Mexico several years ago, and, through her ignorance of the local forms of politeness, accepted the offer of a rare and beautiful shawl. Mutual friends

politeness, accepted the offer of a rare and beautiful shawl. Mutual friends



"MY HOUSE AND ALL IT CONTAINS ARE YOURS."

arranged the matter amicably; but the fair American was greatly mortified when she learned the mistake she had made.

"Doctor Bronson says there used to be a harmless lunatic in San Francisco, and afterwards in New York, who went about the streets dressed in the old Continental costume. With his long and snowy hair, and quaint costume, he was a noticeable figure. He was under the belief that he resembled Benjamin Franklin, and he used to exhibit a photograph representing himself standing at the base of the Franklin monument in Boston.

"His passage by steamer was paid from San Francisco to New York

by some friends, and during the voyage the vessel spent a day at Acapulco. 'Uncle Freddy,' as he was called, went on shore with other passengers, and was introduced to the Governor. The Governor made him the usual offer of his house and everything it contained, and when the hour



SEEING AND BEING SEEN.

came to go on board the steamer the recipient of the offer refused to accompany the other passengers. He declared that the Governor had given him the house, and he was going to remain and enjoy it for the rest of his life. Explanations were useless; and after vainly trying to induce him to change his mind, the passengers seized Uncle Freddy and carried him bodily in their arms to the boat which lay in readiness to take them to the ship. It was necessary to lock him in his room until they had left their anchorage and were steaming outside the harbor.

"Of course you will

naturally infer that the Spanish people are insincere in their politeness, and certainly appearances are against them. But they do not mean anything by it any more than the people of the United States do in their polite ways of speaking. There is this difference, that we do not go as far as the Spaniards in saying empty words, and that is about all. Doctor Bronson says there's a good deal of hollowness in society everywhere; that people could not get along at all together, and there would be no society at all if everybody spoke exactly what he thought at all times.

"Think what would happen if Mrs. Smith should remark to Mrs. Brown when the latter is leaving the house after a prolonged visit, 'I'm

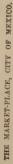
glad you're going; you've staid too long,' instead of saying and acting exactly the reverse; and think, too, what would happen if Mr. Jones, on being introduced to Mr. Robinson, should say, 'I don't care a straw whether I know you or not,' instead of 'Glad to make your acquaintance,' or something of the sort."

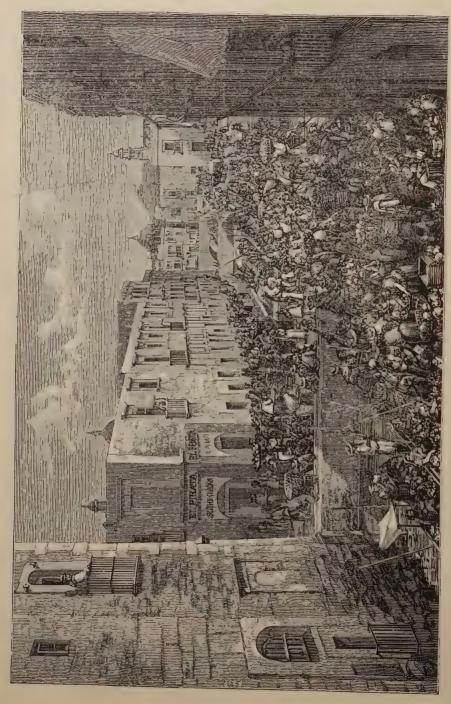
One of the attractions of the Mexican capital is the market-place. There are several mercados, or markets, in the city, the principal one being the Volador, which is close to the National Palace, and overlooked, as already mentioned, by one of the windows of the room which was Maximilian's favorite apartment. History says it was for a long time the property of the family of Cortez, as it happened to be on a portion of the land which he secured at the division of the spoils of conquest. For nearly two hundred years the city paid rent to the heirs of the conqueror, and only in comparatively recent times bought the site, and now owns it in fee simple.

Frank and Fred visited the market-place several times during their stay in the city; in fact, it was one of their principal sources of amusement. They were never tired of studying the ways of the natives who throng the place and offer their wares for sale, and they realized the force of what they read in one of the descriptions of Mexico, that the markets had changed very little since the days of Montezuma and the Aztec rule.

Here is what Bernal Diaz wrote of the market as he saw it in 1519:

"We were astonished at the crowds of people and the regularity which prevailed, as well as at the vast quantities of merchandise which those who attended us were assiduous in pointing out. Each kind had its particular place, which was designated by a sign. The articles consisted of gold, silver, jewels, feathers, mantles, chocolate, skins dressed and undressed, sandals, and great numbers of male and female slaves, some of whom were fastened by the neck, in collars, to long poles. The meat market was stocked with fowls, game, and dogs. Vegetables, fruits, articles of food ready-dressed, salt, bread, honey, and sweet pastry made in various ways, were also sold here. Other places in the square were appointed to the sale of earthen-ware, wooden household furniture (such as tables and benches), firewood, paper, sweet canes filled with tobacco mixed with liquid amber, copper axes and working tools, and wooden vessels highly painted. Numbers of women sold fish and little loaves made of a certain mud which they find in the lakes, and which resembles cheese. The makers of stone blades were busily employed shaping them out of the rough material, and the merchants who dealt in gold had the metal in grains as it came from the mines, in transparent quills, and the gold was





valued at so many mantles, or so many *xiquipils* of cocoa, according to the size of the quills. The entire square was enclosed in piazzas, under which great quantities of grain were stored, and where also were shops for various kinds of goods."

"The description of the market by Bernal Diaz," wrote Fred in his journal, "would answer very well for to-day, so far as the appearance of the sellers and many of the buyers is concerned. They bring the produce of their farms and gardens to market just as they brought it before Columbus discovered America, and the chief difference to-day is that



INTERIOR OF A HOUSE NEAR THE MARKET-PLACE.

slaves, gold, silver, feathers, and some other things named by Diaz are not now offered for sale. The Indians bring fowls and vegetables just as of old and in the same way—in baskets carried on their shoulders or on those of their family. Since the introduction of the railway some produce comes to Mexico by train, and in course of time the old custom may disappear, but it will not do so in a hurry.

"There is a canal from the lake to the city," wrote the youth, "and it comes directly to the market-place, so that the natives bring their boats

close to where they sell their wares. Much of the dealing takes place on board the boats or close to them, and the crowds that gather around while a bargain is in progress are very interesting. Some of the shops and stalls are at the very edge of the canal, so that the prows of the boats stick in among them, and you realize what a serious matter it would be to the market-people if by any accident the lake and the canal should be dried



MEXICAN BIRD-SELLERS.

up and disappear. The whole system of local supply would be radically changed, and until a new order of things could be established the inhabitants of the capital might run the risk of starvation.

"The busiest day of the market is on Sunday, and the noise of the place is almost deafening. The ordinarily silent Mexican becomes very voluble in the market-place when there is a prospect of making something by talk.

"The description we have given of the market of Monterey will answer for this one, with the exception that you must multiply everything by ten or twenty, and add several things we did not see there. One part of the market is devoted to the sale of coffins; they are made on the spot, and had a specially sombre appearance to us, as they are all painted black. The shops in which they are made are in a narrow alley, and the workmen



VIEW ON THE CANAL.

engaged in the dreary industry seemed as unconcerned as did the makers of furniture or picture-frames.

"We hired a canoe and took a short ride on the canal. Its banks are low and marshy; they are devoted to the culture of vegetables, and the gardens had a luxuriant appearance, as though the soil was prolific. The lake, as before said, is brackish and shallow; formerly it contained the famous *chinampas*, or floating gardens, but when we asked for them we were told they did not now exist, though the name is retained. We will say more about them later on.

"Disappointed in one of the objects of our journey, we settled down to an enjoyment of the sights of the canal; but our pleasure was a good deal marred by the number of smells the boatmen stirred up from the bottom. "How old the canal is nobody can tell; it was in use long before the Conquest, for when Cortez came here the boats of the Aztecs were plying on its waters, and he observed the activity of the local commerce when he walked along the banks while he was the guest of Montezuma. There are little villages near the canal; they are the homes of the people who



RESIDENCE ON THE BANKS OF THE CANAL.

till the gardens and supply the markets of the city with vegetables, and with grass for horses and other quadrupeds.

"To see the chinampas it was necessary to go to Santa Anita, or better still, to the lakes Xochimilco and Chalco. Santa Anita is a sort of Coney Island without its ocean, a place of recreation for the middle and lower classes, especially on Sundays and feast days. We went there on a week-day, when it was comparatively quiet; a gentleman who lives here says that on Sunday the place is crowded with people, all bent on amusing themselves. The first thing they do on arriving is to

deck themselves with wreaths of poppies and other flowers, which are sold for next to nothing and grow here in great abundance. After obtaining a supply of flowers they dance, drink pulque, eat tamals and other Mexican delicacies, and have a thoroughly good time as they understand it. There are other villages of the same sort farther along the canal,

but they are not so well patronized by the Sunday excursionists as Santa Anita.

"We seemed to 'take our lives in our hands' in starting on our journey to the lakes, as we had a scene with the boatmen at the bank of the canal which was anything but agreeable. We had been told that we ought not to pay more than two dollars for a boat for the entire day; the men began by demanding five or six dollars, and as all talked at once, and each tried to persuade us to patronize him, and leave the others to look elsewhere for patronage, we had an active time for a while. The men would not abate their demands, and we walked away; then they reduced their



SUNDAY DIVERSIONS AT SANTA ANITA.

figures, and after ten or fifteen minutes spent in bargaining, we secured a craft. It was about twelve feet long and four wide, flat-bottomed, had an awning over the centre where we could sit in the shade but could not stand crect, and was propelled by means of two boatmen working poles in the bow. They pushed with their poles against the bottom or sides of the canal, and thus sent the craft along, at the same time stirring up the mud and several dozens of vile smells.



CREW OF A CARGO-BOAT.

"We met and passed other boats of the same kind, and also small *chalupas*, or canoes, containing one or two persons, and resembling narrow dugouts more than anything else. Then we met cargo-boats of various kinds, some piled high with grass, and others with heaps of baskets or sacks in the centre, and propelled by several men who patiently poled the craft along.

"Frank made a sketch of the crew of one of the cargo-boats at their work. While going forward they carried the poles horizontally above their heads; on reaching the bow of the boat, each man fixed his pole in the mud at the bottom, and then rested his shoulder firmly against the upper end; this done, he walked slowly aft, thus propelling the boat; and as one set of men went aft while the other was going forward, the boat made steady progress through the water. Doctor Bronson said it was a reminder of the navigation of the Mississippi before the days of steamboats.

"The chinampas as they exist to-day are in the neighborhood of Santa Anita and along the sides of the canal all the way to the lake. The ground is low and marshy, and in ancient times was probably a part of the lake or of the great body of water that covered most of the valley. The chinampas are masses of vegetation, reeds, and bushes covered with

soil above, and they are so loosely fastened that they rise and fall with the changes of the height of water. They are said to have been formerly drifted about by the winds and waves, and were then really chinampas; now they are made fast by means of poles, and their owners know where to find them. An excellent description of these marvels is to be found on page 159 of Mr. Brocklehurst's book, and we take the liberty of copying it:

"'When a tract of vegetation, composed of reeds, water-plants, and bushes interwoven and laced together, becomes so dense that it will bear a superstructure, strips of turf twenty to thirty yards long by two yards wide are cut from some suitable firm place, floated to it down the canal,



CHINAMPAS, OR FLOATING GARDENS.

and laid upon it. This is repeated several times, and thus an island is securely raised two to three feet above the level of the water. A little soil is spread over it, and it becomes a *chinampa*, or floating garden, on which Indian corn, vegetables, and flowers are grown. The gardens vary in size from one to two hundred feet in length, and from twenty to a hundred feet in width, according to the nature of the vegetation which supports them.

"'The Lakes Chalco and Xochimilco are covered with this sort of vegetation. The lakes have a varying depth of from ten to fifteen feet, and to secure the gardens in their proper places long willow poles are driven through them into the ground below, where they soon take root. The poles also throw out roots into the bed of the floating gardens, and so hold them steady.'

"It is said that thieves pursued by soldiers or the police have been known to dive under these chinampas and come up on the other side. Any



PEON'S HOUSE ON A CHINAMPA.

enterprising citizen of the United States who thinks of coming to Mexico for a life of crime would do well to become an expert swimmer and diver before venturing into this country.

"These gardens become firm enough in a few years to support men, dwelling-houses, and even horned cattle and horses, although the water continues to circulate freely beneath them. The Government taxes the inhabitants or owners sufficiently to pay the expense of maintaining an inspector and several assistants. The chinampas are separated by narrow canals, and the duties of the inspecting party are to keep the canals free from weeds, and see that the islands are properly fastened so that they cannot drift about with the wind."

We may add to the story of the youth that at the time of the Conquest



CACTUS GROWTHS NEAR THE HILL OF ESTRELLA.

there were thousands of these chinampas, and they annually paid a good revenue to the Aztec authorities. The Valley of Mexico appears to have been more densely peopled at that time than it is to-day, as every inch of solid earth was tilled to its fullest capacity, and the necessity arose for utilizing the marshes and also the surface of the lakes. In the days of Cortez the floating gardens covered Lake Tezcoco, but as time has gone on they have disappeared from that brackish sheet, and are now practically confined to the two lakes we have mentioned and the canals leading to them.

Our young friends kept a sharp watch for the Hill of Estrella, and there was a good-natured rivalry between them as to who should be the first to discover it. Frank was the fortunate one in this instance, for he caught a glimpse of the conical peak while Fred was looking in the wrong direction. It is of porphyritic sandstone, and about 500 feet in height; the sides are steep in some places, and here and there it is possible to discover some of the old masonry which converted the hill into a huge teocalli like the Pyramid of Cheops.

The modern village is at the base of the hill, and there the youths landed and engaged horses to carry them to the summit. The view is



ROCK INSCRIPTIONS MADE BY ANCIENT AZTECS.

quite extensive, and shows a wide area of lakes and valley, and the mountains that engirdle them. But they would hardly have made the ascent of Estrella for the view alone; it was rather because the place has an ancient fame, and was at one time the most sacred in Mexico.

"We have mentioned elsewhere," said Frank, "that the Mexicans had ages, or cycles, of fifty-two years, and at the end of each cycle they had an unusual ceremony, the Festival of Fire, which was not repeated till the end of another cycle. Well, this hill was the scene of the ceremony, which was held on the evening that the constellation of the Pleiades approached the zenith. According to Prescott's history of the conquest of Mexico, a procession of priests on that evening led a noble victim, a captive of the

highest rank, to be sacrificed on the hill of Estrella. For five days previous the people had extinguished all their fires in their temples and dwellings, broken their idols, and given themselves up to despair, as they were taught that the world was coming to an end.

"After the Pleiades had passed the zenith the victim was slaughtered, and a new fire was kindled by the friction of sticks in his wounded breast. Then couriers stood ready with torches, which were lighted at the new fire, and from the hill of Estrella it was carried all through the kingdom. For thirteen days following this event there was general festivity everywhere; and the Festival of Fire may be considered the national carnival of the Aztecs."

Frank and Fred were naturally eager to ascertain what kind of fishes were to be found in the lakes, and they learned in a very practical way. Near Estrella they saw some men fishing with rod and line, and at their suggestion one of the boatmen obtained some of the fish, which proved to be a species of trout. They were not more than three or four inches long, and in order to cook them the boatman made a charcoal fire in the bottom of his craft. The fish were fried on the coals, and were remarkably fat and juicy. The youths thought they had not in a long time tasted anything so delicious, but the Doctor reminded them that they were hungry, and since early in the morning had been out in the open air.



HOME SCENE NEAR THE LAKE.

There are several varieties of fish in the fresh-water lakes of the Valley of Mexico, but in the salt or brackish Lake Tezcoco there is only one kind, and some people think he is not entitled to be called a fish. He is shaped like one, but has four legs and a long, eel-like tail. He belongs more properly to the lizard family than to that of the fishes, and is a disgusting object to contemplate. He grows to about ten inches in length. Frank thought he should go hungry a long time rather than eat of this reptile, who is called *axolotl* in the Aztec tongue, and *ajolote* by the Spaniards.

"Does anybody venture to eat this creature?" Fred asked.

"Certainly," answered his informant; "the Indians eat its flesh, which resembles that of an eel. White men who have got over their prejudice say it is toothsome, and many a stranger has devoured axolotl under the name of fried eel, and enjoyed it too."

"There's a great deal in a name and in prejudice," was the youth's commentary as he changed the subject to something else.

That something was a peculiar article of food even stranger than axolotl. Its scientific name is *Ahuatlea Mexicana*, and it consists of the eggs of a peculiar fly, which are deposited on the reeds and rushes grow-

ing in the shallow places along the borders of the lake. A traveller who visited Mexico two and a half centuries ago: wrote of this substance as follows:

"The Indians gathered much of this and kept it in Heaps, and made thereof Cakes like unto Brick-bats, and they did eat this with as good a Stomach as we eat Cheese; yea, and they hold Opinion that this Scum, or Fatness, of the Water is the Cause that such great number of Fowl cometh to the Lake, which in the winter Season is infinite."



A DEAD FLY.

Custom has not changed in two hundred and fifty years. They sell these "cakes like unto brick-bats" in the markets of Mexico to-day, and the Indians eat the stuff with good relish. It bears some resemblance to fine fish-roe; and after all, prejudice again being removed, and one being hungry, it is not bad eating. The Indians gather these insects by myriads and pound them into paste, which is afterwards wrapped in corn-husks, and forms an article of food second only to the one just mentioned. The laying capacity of the insect, which is about the size of an ordinary fly, is something marvellous, surpassing the abilities of the choicest fowls that ever were reared.

"You may judge how abundant these insects are," said Frank, "when

I tell you they settle down so thickly on the water that we thought they were shoals, or mud-banks! Fortunately for us, they didn't sting, nor did they even settle on the boat."

In one of his letters to the King describing the country he had conquered Cortez gave a minute account of the lakes in the neighborhood of Tenochtitlan, and naturally mentioned the fact that they had no outlet. He solved the mystery of the disappearance of the waters by gravely declaring that there was a large hole in the bottom of Lake Tezcoco by which the lake was drained. A century later an engineer was sent from Spain to find the hole in the bottom of the lake. He made many surveys, but was unable to discover it, and finally concluded that the surplus water was carried off by evaporation.



RUINS OF A TOLTEC HOUSE.

CHAPTER XIII.

COURTSHIP IN MEXICO.—"PLAYING THE BEAR."—LOVERS' TROUBLES.—A SHORT ROAD TO MATRIMONY.—PRESENTS TO THE EXPECTANT BRIDE.—THE MARRIAGE CEREMONY.—TEDIOUS PRELIMINARIES.—CIVIL AND RELIGIOUS MARRIAGES.—DIFFERENCES OF MARRIAGE AMONG THE COMMON PEOPLE AND THE UPPER CLASSES.—A HAND-BOOK FOR LOVERS.—FUNERALS; HOW THEY ARE MANAGED.—CARDS OF CONDOLENCE.—CEMETERIES.—MONUMENT TO AMERICAN SOLDIERS.—ANNUAL DEATH-RATE IN MEXICO CITY.—PREVALENT DISEASES.—DOMESTIC SERVANTS; THEIR NUMBER, WAGES, AND MODE OF LIFE.—A PECULIAR LAUNDRY SYSTEM.

ONE day while Frank and Fred were strolling along the streets, observing the people and their ways, studying the architecture, and making other observations, according to their custom, their attention was

drawn to a young man who was walking slowly up and down in front of a house. His movements were so peculiar that Frank asked their guide what the man was about.

"Oh, he's playing the bear!" was the reply.

"And what is 'playing the bear?' I would like to know," the youth responded.

"He's making love," the guide explained; "that's the Mexican way of courtship."

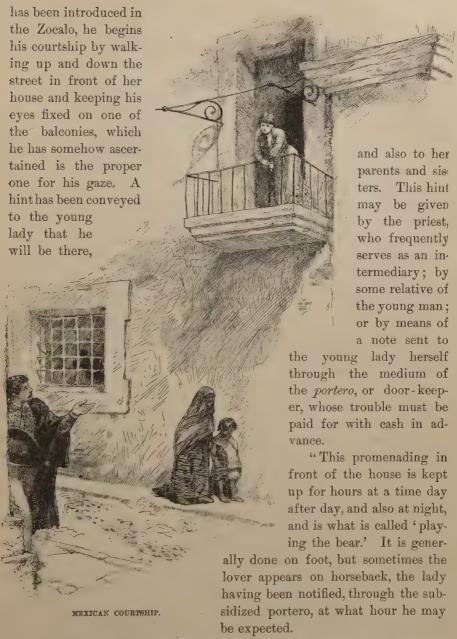
This was a subject of special interest to the youths, as they knew their sisters and all the other young ladies at home would wish to know about it. Accordingly, they proceeded to inform themselves concerning the Mexican form of wooing, and here is the result of their inquiries:

"Courtship in this country," wrote Frank, "is a serious matter, and requires a great deal of patience. Young ladies are carefully secluded from anything more than the most formal acquaintance

with young men, and there is no such thing here as the freedom of social manners that we have at home. When a young man has fixed his thoughts upon a fair damsel whom he has met at a party, or to whom he



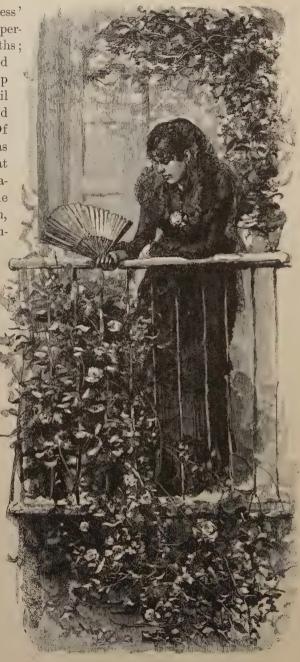
A FORTUNATE BEAR.



"The lover is observed by the lady and her mother and the other feminine members of the family, who sit inside the window and are partially, if not wholly, screened from sight. If the match is favored by the

parents the 'bear business' lasts only a month, or perhaps two or three months; but if it is not so favored the lover may keep it up for a long time, or until he gets discouraged and withdraws his suit. Of course it happens here as in other countries that parental opposition occasionally develops the young lady's affection, and then the young couple resort to all sorts of stratagems to exchange billets-doux. Letters are raised or lowered by means of strings, or transmitted through the hands of the portero already mentioned. In the case of parental opposition the portero runs a great risk, and consequently must be highly paid. Courtship under such circumstances is a luxury that only the affluent can afford.

"When the proper time arrives, provided everything is running smoothly, the young man, accompanied by a gentleman friend older than himself, calls on the father of the girl,



CODE-SIGNALLING WITH THE FAN.

and makes a proposal for her hand. The father says he will see about it, and the visitors take their leave.

"The father asks the girl if she desires to marry the young man.

However much she may desire to do so she must profess indifference and say she cannot tell until she has met him. Then he is invited to call, and when he responds he is met by the entire family, including the servants. After he becomes the novio oficial, or accepted lover, he has the privilege of calling without a friend; but at no time is he ever left for a moment alone with the young lady. All interviews must be in the presence of a member of the family or of a duenna, no matter how long the courtship may continue after the formal acceptance.

"As the time for the marriage ceremony approaches the groom has a serious matter to contemplate—the 'matter o' money' connected with matrimony. He must furnish the house and home, and also buy the bridal outfit. Not infrequently the parents of the bride relieve him of a part of the expense, though they allow him to buy the jewels and



"THERE HE IS."

bridal dresses. One thing that he must provide, according to a long-

established custom, is an ivory-covered prayer-book; whatever else he fails in he must not be negligent in this. Eight or ten weeks before the ceremony, the pair must register at church, giving their names, ages, etc., very much as they do in some of the American States. A similar registry is made at the civil office. The banns must be published for five Sundays, and the bride must state before the priest and a notary that she marries 'of her own free-will.' The civil marriage takes place a few days before the ceremony in the church, and when the matter is ended the young couple are fairly launched into wedded life."

"Hadn't you better say something," Fred remarked, "about the ceremony itself?"

"That's hardly necessary," replied Frank, "as it is not much unlike the ceremony in all Catholic countries, and has been described over and



A STUDENT OF "EL SECRE-TARIO."

over again. There are some local customs, however, that may be worth noting; for instance, a lady describes a wedding that she saw here in a church, where the groom passed several gold coins into the bride's hands, as an indication that she was to manage their financial affairs. But the chances are more than even that he did not permit her to do anything of the kind. When they knelt at the altar a silken scarf was put around their shoulders and a silver cord around their necks, to indicate their complete union."

"A cynical commentator might say," observed Fred, "that the silver cord indicated that the couple was united by financial considerations."

"That's something I've nothing to do with," answered Frank, quietly; "we'll go on with our description. But it is said that marriages in Mexico depend more on social, family, or business matters than upon sentiment."

"After the church ceremony," he continued, "there is a festival to which intimate friends are invited. Then the pair send cards to all friends and reasonably intimate acquaintances announcing their marriage, and the notice winds up with an equivalent for the 'at home' card of married couples in the United States and England.

"And one thing more," added Frank, "while we are on this subject. A woman who never marries is not stigmatized as an 'old maid,' as is often the case in the Northern States. Nobody ever thinks of suggesting that she has never had an offer of marriage; the remark about her always is

that 'she is difficult to suit' even though no man may ever have thought of showing her any attention.

"Of course, you understand that in the marriage just described I had the upper classes in mind. Among the common people there is much less ceremony and formality; marriages are generally arranged by the parish priest, who conducts the principal part of the negotiations, and he has also



MEXICAN WEDDING IN THE COUNTRY.

a great deal to say on the subject among the middle, or tradesman, class. There is as much feasting and revelry as the parties can afford, and generally more than is prudent for them. Sometimes matches are made up by the parents of the young couple, without any consultation with them; but as children in this country are obedient to their parents, they are very unlikely to make any opposition to matches thus arranged."

Frank invested a real in a pamphlet called "El Secretario de los Amantes," or, to translate somewhat freely, "the hand-book of lovers." It is probably the most widely circulated book in the Mexican republic, and is as popular among young people as is "The Complete Letter-Writer," among those whose education has not been all they could wish, and who have occasion for epistolary correspondence.

The earnest attention which was given to this little work as soon as it fell into the hands of the youths led to a suspicion on the part of the Doctor that Frank and Fred meditated a little love-making on their own account, by way of experiment. But so far as we have been informed, noth-



FLOWERS FOR A LADY.

ing of the kind occurred; should any later information on the subject come to hand, it will be duly set forth in the second edition of "The Boy Travellers in Mexico."

The "Secretario" contains a code of cipher writing, forms for using numerals in place of the letters of the alphabet, symbols for each of the twenty-four hours of the day and night or the fractions thereof, and the one-hand alphabet for deaf-mutes. The necessity for this alphabet in love-making, and the practice that comes from it, may probably be the reason why many Spanish-Americans occasionally make signs in conversation,

instead of speaking in words. There are chapters of advice to lovers, and there is a full signal code for the use of the fan, the handkerchief, the sombrero, and the glove. Spanish women have long been famed for their skill with the fan, and for the conversations they can conduct with its aid, and it has a very important place in the language of love.

In most editions of the book there is a separate chapter on the language of flowers and their various meanings accordingly as they are arranged or combined with others. A love-story can be told in the skilful construction of a bouquet—at least enough of it to form the opening chapter. There is also a language of fruits, and Fred suggested that there should be one of tortillas, frijoles, tamals, and other articles of the Mexican cuisine.

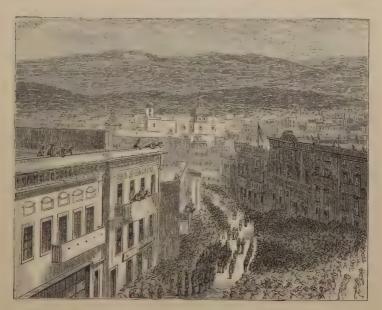
"Here is a wide range," said he, "for the author of 'El Secretario.' Provide each of the lovers with a thermometer, and then the temperature of a tortilla, as it is tossed into or out of a window, can be made to express a great deal. Forty degrees Fahrenheit might mean, 'My love is cold,' and one hundred and twenty degrees would say, 'I'm sighing like the furnace.' Ninety degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees would say the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies, 'Look out for the old gentleman,' and one hundred and twenty degrees signifies and the old gentleman,' and one hundred and twenty degrees signifies and the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman,' and one hundred and twenty degrees are the old gentleman and the old gentleman are the old gentleman are

dred would literally say, 'I'm up to par.' The new edition of the book, with the tortilla annex, ought to sell like—"

"Like hot cakes," Frank remarked, and then the subject of matrimony was dropped.

The youths next considered the subject of the funeral, a ceremony with which the Church has quite as much to do as with weddings. It was Fred's turn to make an investigation, and commit his information to writing, and the following is the result of his efforts:

"One of the odd things about funerals in this city," wrote the youth, "is that they go by rail to the cemetery. The enterprising manager of the street railways formed his scheme, and then bought up all the hearses, so



FUNERAL OF GENERAL DOBLADO, GUANAJUATO.

as to compel the populace to adopt his plan. There was opposition to it at first, but a short trial showed that it was much more economical than the old system. There is a good service of funeral cars, and they are graduated to suit all purses that have any money at all in them. The range of prices is from three to one hundred and twenty dollars; for the lowest sum a single car drawn by a mule is supplied, and for the highest figure one may have a hearse-car, gorgeously draped, plumed, and liveried, drawn by a pair of black horses, and with attendants appropriately liveried and of

most solemn countenance. The hearse-car is followed by two, and perhaps three cars, containing the mourners, friends of the deceased, and others, who go to make up the funeral cortége, and these cars are as appropriately draped as the hearse. Ranging between the highest and lowest figures are half a dozen or even more 'outfits,' so that any desires can be met.

"Another curious custom is that poor people rent handsome coffins to be used during the funeral ceremony, the body being transferred to a plain unpainted box as soon as it reaches the cemetery.

"Funeral cards are printed in the newspapers along with the advertisements, and sometimes they have been inadvertently placed among the 'amusements.' They are also posted on the street corners and in other places where they can be seen, and printed cards heavily bordered with black are sent to relatives and friends. There is a fashionable card form for a funeral as much so as for a wedding, and it would be a great social blunder to vary from the conventional style. Friends and relatives must respond to these cards, and any one who has a large circle of acquaintance is obliged to write a good many notes of condolence in the course of a year.

"When we first arrived in the city we were somewhat surprised at the large number of people in mourning, until we learned that mourning is worn not only for relatives but for friends, and there is a prescribed time for which it must be worn in each case. Suppose a school-girl's father or mother dies, her companions put on mourning for fifteen days; if the girl herself dies they go into mourning for a month. The same rule holds throughout society, and there is also a rule that when one visits a house where the family is in mourning, the visitor must be costumed in mourning also. The result is that fashionable people are in mourning for a goodly part of the year, and a mourning suit, or dress, is a necessity for everybody's wardrobe.

"It is not the custom generally for ladies to attend funerals, but they send cards of condolence and make visits of *pésame* (regret) immediately after the ceremony. Families in mourning are secluded from society very much as in other civilized countries.

"The old cemeteries which are now in the city limits are closed, and no more burials can be made there. They have a general resemblance to the cemeteries that we described in chapter xxii. of 'The Boy Travellers in South America.' Those who can afford permanent burial for their relatives or friends take a perpetual lease of the niche where the corpse is deposited; in such case the word *propiedad* is placed over the entrance, along with the date when the entombment was made. If only a

temporary lease is taken, the remains are removed at the end of five years to make room for a new tenant. The bones are either buried in one of the new cemeteries or thrown into a pit, where the bones of hundreds who once breathed the air and walked the streets of Mexico are indiscriminately mingled. The new cemeteries are laid out in modern fashion; we visited those of Campo Florida and La Piedad and saw some



SOLDIERS' MONUMENT IN THE AMERICAN CEMETERY.

very tasteful tombs, which indicated to us both the tender remembrance of the Mexicans for their dead and the skill of the designers of the monuments.

"We have also visited the English, French, German, and American cemeteries; all of them have recently increased their population with greater rapidity than formerly, owing to the influx of foreigners. In the American cemetery our attention was specially drawn to the monument which marks the resting-place of four hundred soldiers who fell in the attack upon Mexico, the circumstance of their death being told by a brief inscription. The English and American cemeteries are side by side,

and as time goes on it is probable that both will need additional ground.

"A medical publication here gives the annual death-rate of the city of Mexico as about 37 in 1000, but it says that many Indians come here from the lower lands and die of exposure and the effects of the rarefied air at this great elevation. In one year recently there were 13,008 deaths, of which 5577 were males and 6431 females; 4292 deaths were from pneumonia, bronchitis, and pulmonary and tuberculous affections, and there were 179 deaths from small-pox. Diseases of the lungs are dreaded, and those who have resided here for any length of time take great precautions against them. It is not considered safe to remove the hat in the open air for any length of time, and a stranger should be very particular about venturing into a draught. He should also take care not to emerge suddenly from a dimly lighted room to the dazzling sunshine; the air at this elevation is very pure, and the light is consequently strong. We have been told that persons neglecting this precaution have become permanently blind."

Frank and Fred had learned, before being long in Mexico, that there were many things to be avoided in the rarefied air of the valley, or, if not avoided, they should be taken with caution. Ascending stair-ways, or other laborious exercise, at an elevation of 7600 feet had to be done with deliberation, and the least unusual exertion was sure to put them out of breath. They were more sedate in their walking than in New York or other cities on or near the sea-level, and as for running, it was quite out of the question. Frank said he was sure that much of the traditional slowness of the people was due to their high elevation, and the need of taking things easily.

"Yes," replied Fred, "that's probably why this is the land of mañana. The people don't like exertion, and so they put off till to-morrow everything that can be postponed, together with many things that have been positively promised for to-day."

"If they had been in a more northerly climate," said Frank, "it is probable that the Mexicans would be more advanced than we find them. Their location in the tropics has not been to their advantage. The opening of our railways will connect them with northern climes, and if we can fill the Valley of Mexico with our atmosphere it may enable them to breathe quicker than they do now."

The attention of the youths was turned from the elevation and atmosphere to some of the customs of the country, which they had learned from their guide or from others. They were told that it was estimated that

about one-fifth the population was in household or domestic service in one form or another, directly or indirectly. The direct form would include those attached to a household, the indirect those who supply water, wood, charcoal, and other necessities of life, or perform outside work for families or individuals. The wages are low, but a great many servants are employed, so that the aggregate foots up to a large amount.



TAKING THINGS EASY.

"There are from ten to twenty servants employed in a house," wrote Fred, "and we are told that large establishments will have thirty or even more. It is very much here as we found it in India—a great number of people, each with an allotted thing to do, and a servant would risk losing his place rather than do anything that belonged to another.

"Here's a list," he added, "that I have copied from the description of a Mexican household by an American visitor: portero, door-keeper; cochero, coachman; lacayo, footman; caballerango, hostler; mozo, man of all sorts of work; cargador, public carrier; camarista, chamber-man in a



A CHARCOAL PEDDLER.

hotel, or valet in a private house; recamerera, chamber-maid in a private house; ama de llaves, house-keeper, 'mistress of the keys;' cocinera, cook; galopina, kitchen girl; pilmana, nursemaid.

"There are other servants, such as the molendera, the woman who grinds the corn (for making tortillas); the costurera, sewing-woman; or the planchadora, ironing-woman. The most important servant is the portero, who has general charge of the house, and sometimes of a large building in which several families live. He is the exact counterpart of the German door-keeper, and, like him, generally lives with his family in a narrow retreat, which is situated so that he can command the entrance and observe who comes in or

goes out. Servants do not change places as often as in England or the United States. It is by no means rare for them to spend their entire lives with a family; their parents before them served it, and their children will do so when they themselves are gone.

"The cook receives from two to five dollars a month, and chamber-maids and seamstresses the same. The men-servants are paid from ten dollars a month upwards, and out of their wages they are required to buy part of their food, and in some cases all of it. At least this is the theory, though the practice is that the employer really supports them, though indirectly. Servants are nearly always in debt to their employers, and this state of affairs is encouraged by law, as they are not allowed to leave a place as long as they are in debt. The only way in which this can be done is for the employer to assume the debt, pay the creditor, and then collect the amount by holding back a portion of the servant's wages each month till the obligation is discharged."

When Fred read aloud the foregoing account of the Mexican servants

and their ways, Doctor Bronson suggested that he might add something about the lavanderas, or laundresses.

"That's so," replied the youth; "I had forgotten about them for the moment." Then he sat down and wrote as follows:

"Some of the houses have laundries, where the washing is done; but many dwellings are not thus provided, and the clothes are taken outside to be cleansed. In the smaller cities the washing is done on the banks of a stream or lake; the clothes being first put into a tub or box and soaked in water in which soap has been dissolved; then they are pounded with sticks or stones and rubbed with the hands. The work is not done with gentleness, and a few trips to the laundry generally wear out garments made of ordinary material. Some of the lavanderas undertake to wash, starch, and iron the clothes, while others attend only to the washing, and leave the other work as a separate contract with the planchadora. The employer is generally expected to furnish soap for washing clothes, and very often the servants are supplied with it for their own use, in addition to their wages."



A MEXICAN WASH-HOUSE.

CHAPTER XIV.

SCULPTURE AND PAINTING IN MEXICO.—NATIONAL SCHOOL OF THE FINE ARTS.

—BRIEF HISTORY OF MEXICAN ART.—CELEBRATED PAINTINGS.—"LAS CASAS PROTECTING THE AZTECS."—"THE DEATH OF ATALA."—HOW AN ARTIST MANAGED TO SELL A PICTURE.—FROM ART TO PULQUERIAS.—THE NATIONAL BEVERAGE OF MEXICO.—THE MAGUEY PLANT.—HOW PULQUE IS MADE.—COLLECTING THE SAP.—FERMENTING AGUAMIEL.—DAILY CONSUMPTION OF PULQUE IN THE CITY OF MEXICO.—MANAGEMENT OF THE SHOPS.—ROMANTIC HISTORY OF THE INVENTION OF PULQUE.—MEXICAN POLICE-COURTS.—NOVEL MODE OF TRYING CASES.—THE BELEM PRISON.—CATALOGUE OF OFFENCES AGAINST THE LAW.—AN ADROIT THIEF.—RUNNING THE GANTLET.

ROM laundries to the fine arts is a step from the practical to the æsthetic. After finishing their account of Mexican domestic service, Frank and Fred accompanied Doctor Bronson in a visit to the National School of Fine Arts, which is commonly spoken of as the Academy of San Carlos. It must not be understood that this was their first visit to this



THE LANDING OF COLUMBUS.

excellent institution; they had been there several times, and it was their intention to continue to look at the paintings in the Academy whenever they had an hour or two to spare.

Within ten years after the arrival of Cortez a college was founded in the city of Mexico by one of the Franciscan brothers, and to this college departments of music and drawing were attached. This may be considered the parent art school of Mexico, and from it is descended the Acad-

emy of Fine Arts as we see it today. No great progress was made in art matters until near the end of the sixteenth century, when a Spanish artist, Sebastian Arteaga, came to Mexico, and was shortly followed by Vasquez and Echave, the lastnamed being accompanied by his wife, who was an accomplished painter, and is traditionally said to have been Echave's teacher.

The seventeenth century brought several artists from Spain, and they did some good work; at the same time native talent began to assert itself, and several artists and sculptors of Indian blood made for themselves lasting names. In the eighteenth century the most noted artist, who was also sculptor and architect, was Tresguerras, a native of Zelaya, in the State of Guanajuato, on the line of the Mexican Central Railway, and he deserves more than passing mention.

The Church of Our Lady of Carmen, at Zelaya, was designed by Tres-



MEXICAN SCULPTURE.—DOOR-WAY OF CHURCH OF
SAN JOSÉ.

guerras, and is famous throughout Mexico for its beauty and artistic proportions. The tower and dome are especially the admiration of architects and artists, and the whole effect of the structure, whether in a near or a distant view, is most agreeable. The interior is adorned with frescoes and paintings in oil by Tresguerras, and he has been, not inappropriately, styled "the Michael Angelo of Mexico."

Frank and Fred gleaned the foregoing information from Mr. Janvier's "Mexican Guide," during their first visit to the Academy, and they also learned from the same excellent authority that the present Academy had its actual beginning in 1779 through a school of engraving established in the mint. The success of the engraving school and the general interest in it caused the director of the mint to seek the permission of the viceroy to establish schools of painting, sculpture, and architecture; and the permission was readily granted. Later the matter was referred to the King, who issued, in December, 1783, an order for the foundation of the Academy. On the 4th of November, 1785, the formal opening of the Academia de las Nobles Artes de San Carlos de la Nueva España took place, and this is the institution which the youths visited on repeated occasions whenever they had any spare time on their hands. It is proper to say that the school was originally opened in the mint, but in 1791 it was removed to the building where it now is.

Like most other institutions of Mexico, it has had many ups and downs, consequent upon the political changes through which the country has passed. At present it has an allowance of about \$35,000 annually from the Government, and is regularly a Government affair, its name having been changed in 1868 to the National School of the Fine Arts. Prizes are given for meritorious work by the students, all tuition is free, and there is an average attendance of about one hundred throughout the year. One prize which is specially sought is an allowance of \$600 a year for six years to enable the recipient to study art in Italy. Within the last few years night classes have been established for working-people, and have been well attended.

"We will not undertake to give you a list of all the paintings we saw," wrote Frank, "nor even a part of them, as in any event it would be tedious to anybody at a distance. The pictures are arranged in three large galleries and two small ones, and they are grouped together according to their age and the nativity of their painters. One gallery contains paintings by the old masters of Europe, another is devoted to old Mexican masters, and another to pupils of the Academy.

"The finest picture in the last-named collection, that of the pupils of the Academy, is by Felix Parra, and is entitled 'Las Casas protecting the Aztecs.' Parra painted it before he had seen any country except Mexico, and he received the first prize at the Academy of Rome on account of the merit displayed in this work. I will not attempt to describe the painting, but send a photograph by which you may judge of it. The coloring is, of course, lost in the photograph, but you can get an idea of the drawing and



LAS CASAS PROTECTING THE AZTECS.

the sentiment of the picture. Las Casas is represented standing on the steps of a teocalli, and at his feet is the dead body of a Mexican chief, who has been slain by the Spaniards; while an Aztec woman clings imploringly to the robe of the priest.

"The painting is a historic one, and the story it illustrates is this:

"Las Casas was a Spanish prelate who accompanied Columbus to the West Indies and afterwards came to Mexico. He was horrified at the treatment of the natives by their conquerors, and he crossed the ocean no less than twelve times to intercede with the King of Spain in their behalf. He was unsuccessful in nearly all his efforts, though he finally persuaded the Emperor Charles V. to make some effort to redress the wrongs which the Indians were suffering at the hands of the Spaniards. He risked his life on many occasions on behalf of the natives, as we read in Prescott's histories, and when the Emperor offered him the bishopric of Cuzco, one of the richest appointments in the Spanish colonies, he declined it and accepted that of Chiapas, one of the poorest and most ignorant. He died in Madrid in 1566, at the age of ninety-two years.

in Madrid in 1566, at the age of ninety-two years.

"Every time we visit the gallery we linger in front of this picture, and are never weary of admiring and studying it. Many good critics pronounce it not only the best painting in the gallery where it hangs, but the best in the entire collection of the Academy. This is high praise, indeed, when we remember that the Academy has works by Leonardo da Vinci, Murillo, Rubens, Correggio, and Velasquez.

"Another fine painting of the modern Mexican school is the 'Death of Atala.' Felix Parra is represented by other works in addition to the Las Casas; one of these is 'The Massacre in the Temple,' which also has historic value. It illustrates the butchery of the natives in the temple by Alvarado, whom Cortez had left at the capital city while he personally went to the coast to meet the ships and troops that had been sent from Cuba to reinforce the invading army. As the history of Mexico was closely identified with the Church down to within twenty years or so, it naturally occurs that nearly all the paintings of former days are of a religious character, just as we find the paintings in the galleries of Europe."

One day in their visit to the Academy the youths met a gentleman to whom they had been previously introduced, and one of them asked if the wealthy people of Mexico gave much encouragement to native art.

"I'm sorry to say they do not," was the reply. "It has not yet be-

"I'm sorry to say they do not," was the reply. "It has not yet become the fashion to buy modern paintings, but some of our rich men are setting the example, and as the country becomes developed and more

wealthy, the example may be followed. But just at present the best patrons of art are the *pulque* shops, and as their patrons are not very critical, it does not require a high talent to meet their wants. In private houses there is a greater demand for huge mirrors than for fine paintings, and the value of the plate-glass mirrors in the city of Mexico is far beyond that of the modern works of art to be found here. Many an artist of fair promise has been obliged to abandon the dream of his life, and obtain a living by painting for the *pulquerias*, or selling silk and woollens behind the counter of a shop."



THE DEATH OF ATALA.

The gentleman then told a story of a native artist who had painted a canvas some eight feet by six, representing "The Landing of Columbus." Months and months passed and he could not find a purchaser though he lowered his price to half its original figure; then at the advice of a friend he made a few changes in the ships, costumes, coloring, and scenery, and entitled the picture "Evacuation of Mexico by the French." In less than a week he found a customer who made not the least objection to the price which was set upon the work.

The mention of pulquerias naturally drew attention to those establishments, which abound in Mexico as do beer shops in New York. Fred undertook an essay concerning them and the substance in which they deal.

"Pulque is the product of the Agave Mexicana, or maguey plant," wrote the youth, "and a description of Mexico without a reference to it would be like 'Hamlet' without Hamlet. It is the beverage of Mexico as beer is that of Germany and wine the drink of France. Along the



A SUCCESSFUL ARTIST AT WORK.

line of the railway, as we were coming southward, we passed many fields of maguey, and several times we saw the collectors gathering the juice of

the plant for conversion into pulque.

"Nobody knows when pulque was invented, as it was in use here centuries before Cortez was born. There are many fables concerning it, and like most fables of the kind, the discovery of the use which could be made of the juice of the maguey is generally attributed to the gods. One more practicable fable is that a Toltec noble discovered it and sent some of the pulque to the King, by the hand of his daughter, Xochitl. The King was so delighted with the drink and the maiden that he swallowed the former and married the latter, and their son succeeded him as king. This was the beginning of the downfall of the Toltecs and their extinction as a nation,

but the art of making pulque was not lost; the name of the lovely Xochitl has been preserved in the Aztec name of the beverage, *ochtl*. During our war with Mexico the soldiers under Generals Taylor and Scott drank the liquid, and in attempting to pronounce its Aztec name they generally got



MAGUEY PLANT.

no nearer to it than 'cocktail.' They carried the word back to the States, and Doctor Bronson tells us that it is occasionally heard there at this day in clubs and hotels, where it is applied to beverages in which spirits, bitters, and other ingredients are mingled.

"The maguey belongs to the cactus family of plants, and there are said to be forty varieties of it. Twenty-two yield aguamiel, or honeywater, from which pulque is made, and the others are used for hedges and for making paper, cords, and other things. In former times the natives are said to have had not less than a hundred uses for the maguey plant in addition to its production of pulque. They made paper from the pulp of the leaves, cords and thread from the fibre, needles from the thorns, shingles and troughs from the leaves, and the little clothing they wore was generally made from the thread derived from the maguey. The leaves are sometimes ten feet long by a foot wide, and like the leaves of the other members of the cactus family, they are of great thickness.

"When the maguey plant is about ten years old it sends up a single



stalk in the centre which often rises to a height of twenty-five or thirty feet. This stalk is covered with flowers, hundreds and sometimes thousands of them, and they are of a yellowish green color. After blossoming the plant dies, very much as does the sago-tree and some other tropical growths; a single blossoming is all that it is capable of in its lifetime. And here is where the pulque comes in, or, rather, comes out.

"The Indians watch the plants closely when the flower-stalk is expected to appear, and just at the right time they cut out the centre of the stem, leaving a hollow as large over as an ordinary washbowl but a good deal deeper. The sap, which was intended to nourish the flower-stalk, flows into this cavity, and flows so rapidly that it must be emptied every few hours. The leaves on one side of the plant are cut away so that the cavity can be reached, and then the *tlachiquero*, or collector, makes his rounds.

"He is equipped with a gourd open at both ends; inserting the broad end into the cavity, he sucks up the juice (aguamiel), and then deposits it in a pig-skin hanging over his back, or in pig-skins or earthen jars on the back of a donkey.

"The aguantiel is carried to the central station of the establishment, where it is poured into shallow vats of pig or cow skin. There it ferments and becomes pulque, a vile-smelling liquid which is said to taste like stale buttermilk; it is almost always repulsive to the stranger, and sometimes one who comes within smelling distance of pulque for the first time is made ill by it. A good maguey yields from eight to fifteen pints daily, and continues to do so for three or four months; and a good estate of maguey plants is more certain in the revenue it brings to the owner than any other enterprise. The plants thrive in the poorest soil where hardly anything else can live.

"A scientific writer on this subject says: 'An analysis of aguamiel gives glucose, sugar, and water as the principal ingredients; it froths when shaken, gives an abundant precipitate with subacetate of lead, and when filtered the resultant liquor is colorless. Pulque is the product of the fermentation of aguamiel, is an alcoholic, mucilaginous liquid, holding in suspension white corpuscles, which give it its color, and has an odor and taste peculiar to itself. It is more or less sugary according to its strength, and contains about six per cent. of alcohol.'

"Pulque is sent from the estates along the railway in barrels and pigskins, and the amount consumed in the capital is about 80,000 gallons daily. There is a pulque train daily to the city; we passed it at a sidetrack, and easily detected its presence by the smell of fermentation.



EXTRACTING AGUAMIEL.

"The pulque shops are as discernible to the nose as to the eye; they are numerous in all the cities and large towns, and very properly are under the eyes of the police. There are 820 of these shops in the city of Mexico. They pay a license fee to the Government as do beer and wine shops in European countries, and the law requires that they shall close at 6 P.M.; and, what strikes a New Yorker with astonishment, it is enforced,



A GLASS OF AGUARDIENTE.

too. The city derives a revenue of a thousand dollars a day from the pulque brought here for sale, in addition to what it receives for shop licenses; the railway probably gets a thousand dollars also for the daily transportation, and altogether the national drink of Mexico costs a great deal of money.

"Liquors called mescal and tequila are distilled from pulque, and contain a larger percentage of alcohol. Then there is a stronger liquor, called aguardiente (burning water), which is literally described by its name. Some gentlemen who have tasted it say that it is like swallowing a torchlike procession or a whole collection of Fourth-of-July fireworks."

From pulquerias to police-courts is a very natural step, and one which is taken by a good many natives of Mexico. Frank and Fred took it, though not after the Mexican fashion, as their movement was voluntary, while that of the native is performed by invitation, or demand, of the police. The better classes of the population know next to nothing about the police-courts or where they are held, and it was only after a great deal of inquiry that the youths learned where and when to go. The guide who had shown them the sights of the city claimed to be unable to tell them,



"NOT CAUGHT YET."

and when they ascertained for themselves, he was somewhat unwilling to accompany them. It is barely possible that he had been there on his own account altogether too often to make a voluntary visit agreeable.

They found the court in the municipal palace, at one side of the Plaza Mayor. Ascending a staircase, they were shown into a waiting-room, and beyond it there were several smaller rooms. Two or three gentlemen were seated at a table in each of the rooms, and seemed to be busily engaged in discussing something. Frank asked the guide what they were doing.

"One of them is a magistrate," was the reply; "and the others are

the lawyers, who are laying a case before him. One is the prosecutor, and the other is for the defence."

"But where are the accused and the policemen?"

"They're down-stairs, or perhaps they haven't got to the palace yet. They don't come into these rooms at all. The magistrate hears the case through the lawyers, and doesn't have the prisoner brought before him, as you do in your country." On further inquiry the youths learned that the magistrates hear the cases in this way, and decide whether the complaint shall be dismissed, the prisoner let off with a fine, or sent to the Belem prison, at the edge of the city.

Some of the prisoners were, as the guide said, "down-stairs;" but the



A MAGISTRATE.

greater number were in a building separate from the palace, and situated on a narrow street close by. There is a court in the prison building, in which the magistrates hear cases in the same way as at the municipal palace, without seeing the prisoner; they hear the testimony for and against him, and decide accordingly.

At the Belem prison they found another court, where cases were more carefully considered; but they learned from a gentleman, with whom they afterwards talked on the subject, that the Mexican courts are overcrowded

with work, and prisoners often have to wait weeks or months, and even years, before their cases can be heard. A prisoner against whom a serious accusation has been made can never learn when it will be called to trial;



AN OLD OFFENDER.

his friends are not informed; and the only thing they can do is to watch and wait day after day, or possibly pay heavily to somebody for his influence with the authorities. Matters are better now than previous to the Laws of the Reform, but they are still far from what they should be.

"We judged," said Fred, "that the Belem prison was greatly overcrowded, as the courtyard was full of people, and so were the corridors that overlooked the yard. The prisoners sleep on mats on the floor of the dormitories, which are about 170 feet long. One hundred men lie in a row on the mats along the floor of the dormitory, so that there must be very little room to walk around. The fare of the prisoners consists of twelve ounces of bread daily, one pound of meat, and a bowl of soup. Three times a week they have stewed beans in addition to the other food.

"A prisoner whose sentence exceeds one month is compelled to work, but he is paid for his labor; one-half his wages go to his family if he has any, and the rest is saved up by the prison authorities until the man is discharged, when the money is given

to him. This seems to me an excellent system, and it should be adopted in our own country. In that case an ex-convict would have something to

live upon for a while, instead of being, as is too often the case, driven into crime to save himself from starvation.

"To show the character of Mexican offences, I will quote from the records of the prison for one month. The whole number of prisoners was 1278, and they were charged with crimes as follows:

"Thefts, 198; fighting, 109; stabbing, serious, 518; stabbing, slight, 313; wounding with sticks or clubs, 140.

"Observe that two-thirds of the number were in prison for the use of the knife, and you get an idea of the propensities of the lower classes of the population.

"We have already mentioned the adroitness of Mexican thieves, and we heard several stories while visiting the prison that confirm what we have heard. There's a saying here that if you drop a coin it will be caught before it reaches the ground. They told us a story about the Chief Magistrate of Mexico City which we were assured was entirely true; it sounds like a 'chestnut,' but is good enough to be repeated. Here it is:

"The magistrate was one day on the street when he remarked to a friend that he had left his watch hanging over the head of his bed at home. In less than an hour a thief was at the door with a fat turkey; he said that it was sent by the magistrate, who wished his wife to send him his watch, which he had left at the head of his bed.

"She sent the watch, and when his Honor came home that night he learned of the trick that had been played. He consoled himself with the reflection that he had a fat turkey for the next Sunday's dinner, and would not be obliged to buy anything for that important meal.

"But the next day an accomplice of the watch-stealer called and said the magistrate had sent him to get the turkey, which they desired to produce in court. The man who stole the watch had just been arrested, and the turkey was needed to secure his conviction, as it was one of the 'properties' in the case. Of course it was promptly sent.

"So the good man lost both his watch and his turkey, and never heard of either of them again."

There is a short road to justice called *ley de fuga*, which is sometimes travelled in Mexico; it may be translated into "running the gantlet." By Mexican law an officer has the right to shoot a prisoner trying to escape. Sometimes, when bandits or murderers are captured, they are allowed to try to escape, and in their effort to secure their freedom they take the chances of being killed. Recently this disposition was made of seven bandits who murdered a German named Müller in the State of Durango, and then robbed his house, compelling Mrs. Müller to show where the valu-

ables were kept. They were captured while seated at table in Müller's house after completing the robbery, a party of soldiers happening to arrive there most opportunely. As their conviction and execution were certain, they accepted the offer of the officers to permit them to try the ley de fuga, but not one of them succeeded in escaping.



SCENE OF THE CAPTURE.

CHAPTER XV.

THE PASEO DE LA REFORMA.—BRIGANDAGE NEAR THE CITY.—STATUE OF CHARLES IV. OF SPAIN.—STATUE OF COLUMBUS.—A RELIC OF MAXIMILIAN.—AQUEDUCTS FROM CHAPULTEPEC.—MONTEZUMA'S TREE.—CHAPULTEPEC; ITS HEIGHT AND EXTENT.—MONTEZUMA'S BATH.—THE PALACE.—"THE FEAST OF BELSHAZZAR."—NATIONAL MILITARY COLLEGE.—MOLINO DEL REY.—GENERAL SCOTT'S ADVANCE UPON MEXICO.—CAPTURE OF VERA CRUZ.—BATTLE OF CERRO GORDO.—ENTERING THE VALLEY.—CONTRERAS AND CHURUBUSCO.—FALL OF CHAPULTEPEC.—GENERAL SCOTT'S ENTRANCE INTO THE CITY.—TREATY OF PEACE.—GENERAL GRANT ON THE MEXICAN WAR.

ONE of the most attractive drives in the neighborhood of Mexico is along the Paseo de la Reforma, the avenue leading to Chapultepec. In point of fact, it is generally the first drive taken by a visitor, and he



A CORNER OF CHAPULTEPEC.

is pretty certain to be favorably impressed with it. Chapultepec was a royal residence before the Conquest; during the Spanish rule it was the home of the viceroys, and since that time the President of the republic has generally lived there when he could live at all in the city or its vicinity. Maximilian selected it for the location of the Imperial Palace, and enlarged the then existing buildings; the avenue leading to it owes its origin to his ambition, and is a monument of his taste for the beautiful.



MONTEZUMA'S TREE.

Whether the ride to Chapultepec is taken by the tram-way or in a carriage, the stranger will find it full of interest, and he would do well to try both means of making the visit. If he is an equestrian he will hire a saddle-horse, and make the excursion on horseback between seven and nine o'clock in the morning, when it is the fashion to appear thus on the Paseo. Doctor Bronson and his young friends followed the prevailing custom, and through the aid of the manager of the hotel were satisfactorily provided with steeds. But they were very modestly mounted in comparison with some of the Mexican equestrians, whose saddles and saddle-cloths were elaborately ornamented and said to have cost all the way from one to two

thousand dollars each. Some of the horsemen were armed with sabres and revolvers—a souvenir of a custom which is no longer necessary, but was emphatically so not many years ago. The road to Chapultepec, and indeed the roads anywhere in the suburbs, were infested with brigands, who used to rise up from unexpected spots as though at the hand of a magician, and perform their work in a very expeditious manner.

The enterprising brigands were not content with robbing people on horseback or in carriages, but occasionally devoted their energies to kidnapping residents and holding them for ransom. As an illustration of their performances Frank made note of the following story:

"One evening while a gentleman was at dinner with his family, in the suburb of Tacuba, a party of brigands appeared and commanded silence on



STATUE OF COLUMBUS ON THE PASEO DE LA REFORMA.

the part of all under pain of death. They harmed no one, and did not rob the house, but they hurried the gentleman into a carriage, and drove away with him. It was naturally supposed that he had been taken to a place of concealment among the foot-hills of the mountains that encircle the valley; but it turned out that his captors drove directly to the city and secreted their victim in the cellar of a house. There he was kept for several days, until the police were so closely on the track of the kidnappers that they fled and left him to make his escape. Subsequently they were captured and executed; but the circumstance was not at all a pleasant one for suburban residents to contemplate."

Fred observed that the Paseo de la Reforma begins at the equestrian statue of Charles IV., very nearly a mile from the Plaza Mayor. It may also be said to begin at the Alameda, a beautiful garden of poplar and other trees, and occupying a historic site. The Alameda includes the ancient Indian market-place and the Plaza del Quemadero, where the victims of the Inquisition were burned to death on a stone platform which was long since removed. Successive viceroys improved it, and within the last few decades it has been planted with flowers and otherwise beautified, so that it is now a very attractive spot.

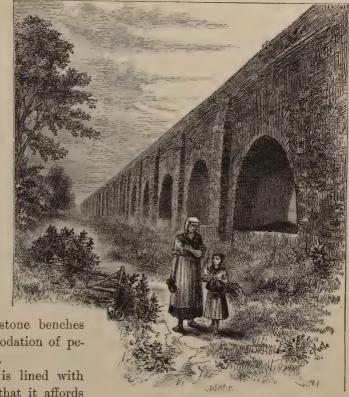
The statue of Charles IV. is a fine work of art, and notable as the first bronze casting of any magnitude on this side of the Atlantic; Humboldt pronounced it second only to the statue of Marcus Aurelius, and it has received the unstinted praise of many critics who have seen it. It was cast in 1802, and placed upon its pedestal in the following year. During the War for Independence it was, in 1822, covered with a large globe of boards painted blue, and in this condition it remained for two years, when it was taken down and placed in the court-yard of the University. In 1852, when the hostility to the Spaniards had somewhat abated, the statue was restored to its pedestal, and has peacefully rested there ever since. The casting is in a single piece, and weighs thirty tons, and the height of horse and rider is only a few inches less than sixteen feet.

From the foot of the statue to the base of Chapultepec is a distance of 3750 yards; the Paseo de la Reforma runs straight as a sunbeam along this measured length, and it has a width, including the sidewalks, of fifty-six yards. At regular distances there are glorietas, circular spaces like the Rond-Point of the Champs-Elysées, in Paris, which are intended for statues of men eminent in the history of Mexico; one of them is already occupied with a statue of Columbus, who is represented drawing away the veil that hides the New World. At the corners of the pedestal are four life-size figures in bronze, and Frank and Fred were pleased to observe that one of them represented the good missionary Las Casas, who labored earnestly for the protection of the Indians. A statue of Guatemozin, the last of the Aztec kings, is destined for the next space, but had not been erected at the time of the visit of our friends; the third space was intended for a statue of Cortez, and the fourth for one of Juarez. The oc-

cupants of the other glorietas had not been named. but they will be men famous in the history of Mexico. From present indications Maximilian is not likely to be chosen as one of the heroes to be preserved in bronze. The glorietas are 400 feet in diameter, and sur-

rounded with stone benches for the accommodation of pedestrian visitors.

The Paseo is lined with shade-trees, so that it affords pleasant walks; the centre of the road-way is reserved for



SAN COSME AQUEDUCT.

people on horseback, while the carriages move along the sides. On pleasant afternoons the vehicles are so numerous that the police have sufficient occupation to keep them in proper line, and the turnout is a fine one in every way. Frank and Fred compared the display one afternoon with that of London, Paris, and New York, under similar circumstances, and after careful consideration they agreed that the Mexican pageant was more attractive than any one of the rest.

"The ground is level, the road finely macadamized, and the way perfectly straight; the horses and carriages are the best that can be procured; the equestrians are splendidly mounted, and their apparel and equipments are picturesque; the ladies are handsomely attired, and many of them have pretty faces; the panorama of hills and mountains loses none of its grandeur, and altogether we are in love with the Paseo de la Reforma."

So wrote Frank, and his cousin gave his hearty indorsement of the

opinion thus presented.

"Don't forget," said Fred, "to make mention of the aqueducts that supply the city with water, as they are in sight from this drive. One comes from back among the hills near the old convent of El Desierto, and the other leads from a great spring at the foot of Chapultepec. The latter aqueduct gave shelter to our soldiers during their attack on the gates



MONTEZUMA'S BATH.

of the city after the storming of the castle; from one pillar to another of the aqueduct they dodged the fire of the Mexican artillery and infantry, and so gained the front of the gate-way."

"I'll not forget that," replied Frank, "nor the old cypresses under which Montezuma is said to have sat and walked; but before we get to them we'll mention that an American company proposes to make an extension of the city of Mexico by building a suburb on the level tract of land through which the Paseo runs. This was one of the dreams of Maximilian, but he had no time or opportunity to put it into practical shape. His idea has been taken up by the peaceful invaders from the North, and

if it is carried out as they propose, it will not be many years before the land is materially transformed. Artesian wells have been sunk in this level space and have found an abundance of water, and the projectors of the suburb say they will have their own supply without depending upon either of the aqueducts."

"Chapultepec is a delightful spot," wrote Fred, "whether considered as a public resort, a royal or Presidential residence, or for the panoramic view presented to the visitor as he looks from its top. It is an isolated rock, or hill, rising about 200 feet, and with a length of 1000 or 1200 feet,



CHAPULTEPEC AND ITS GARDENS.

and the top is crowned with the buildings, which have seen many changes among their occupants as well as in themselves. The sides are steep in some places, but gradual in others, the steep parts predominating. All around the base are cypress-trees, whose age is unknown; but they are certainly very old; and their venerable appearance is increased by the moss that depends from their limbs.

"The tree of the greatest interest to us was that which bears the name of Montezuma. If tradition is correct, the Emperor sat beneath its shade; and it was possibly while resting here that he received the news of the



EL SALTO DEL AGUA.

approach of those strange white men who had landed upon the coast, and rode upon animals the like of which were never before known in America. It is a wonderful tree 170 feet high, and forty-six in circumference. Like the other great trees of Chapultepec, it is a cypress; and like the others, too, it is heavily draped with moss, as though in mourning for the aboriginal ruler, whose kingdom was torn away by the invader.

"From the tree of Montezuma we went to his bath, which is not far away, and is the famous spring that fills the aqueduct already mentioned. The water is cool and clear, and supplied the ancient Tenochtitlan, just as in later days it was made to supply the Spanish city which rose on the site of the Aztec one. The aqueduct through which the water flows is exactly on the line of that of the Aztecs. The Spanish aqueduct was begun in 1677, and has 904 arches from its starting-point at Chapultepec to its terminus in the Salto del Agua, or Water-fall, in the city. The water of Chapultepec is called agua delgada, or thin water; while that supplied by the San Cosme aqueduct is agua gorda, or thick water. From time immemorial the spring has been flowing, and it is supposed to be fed by underground channels from the mountains.

"After the tree and the baths we visited the palace, or such part of it

as was open to the public. There is not much worth seeing inside the building, the most interesting feature about it being the view from the roof. All the Valley of Mexico, with its girdle of mountains, was before us; it was like the view from the cathedral tower, with the difference that the city formed a part of the horizontal view in one direction, while from the tower it lay beneath and around our feet; and the same view that included the city embraced also the snowy peaks of Popocatepetl and the 'White Woman,' which lay a little to the right of the cluster of domes and roofs standing between us and the silvery sheet of Tezcoco. In the opposite direction was Tacuba, the spot where Cortez thought of rebuilding the city which was to rise in place of the Tenochtitlan he had destroyed. It is to be regretted that he did not do so, as the site is better adapted to a

city; it admits of good drainage, which the present one does not, and would undoubtedly be healthier.

"The present palace stands on the site of the one occupied by Montezuma. Chapultepec was called the 'Hill of the Grasshopper' by the Aztecs, and in their maps of the valley the hill is represented with a grasshopper as large as itself perched on the top. We are wondering whether they really had grasshoppers of that size. What a famine they would create if they were as numerous as they are to-day in some parts of the West!

"What a magnificent place this must have been in the time of Montezuma, according to the description in Prescott's History!



AN AZTEC RELIC.

scription in Prescott's History! Here was an aviary that alone required 300 attendants, and there was a menagerie of corresponding extent. Then the King had granaries of immense extent, to guard against suffering in case of famine; and there were armories with weapons sufficient for a military force of thousands. The halls of the palace were spacious, and the royal dining-table was supplied with delicacies of all kinds from every part of the dominions. Fresh fish were provided daily

by a line of couriers in the same way that they were supplied to the Khan of Tartary in the days of Marco Polo, and also to the royal table of Japan. According to the accounts, the runners made the journey from the coast to the city in very nearly the same time that it is now made by the railway.

"We were shown through the palace, which has large halls and galleries, and is surrounded by terraces paved with marble and affording fine views of the valley and mountains. Some of the halls and galleries are elaborately ornamented, while others are quite plain; a portion of the decorations ordered by Maximilian still remain, and others have been covered or partly obliterated. The most interesting hall was the grand saloon, where banquets are occasionally given. It is memorable for having been the scene of Maximilian's 'Feast of Belshazzar,' as the Mexicans call it—his grand banquet on his return from Orizaba, just before he started for Queretaro, for capture, and for execution. Many of the porcelain dishes marked with the imperial cipher were broken at this banquet, and are kept as souvenirs by those who secured them. A friend of ours in New York has one of them; it is part of a saucer, and was given to him by a gentleman who was in Mexico shortly after the fall of the Empire.

"The national military college is at Chapultepec, and adjoins the palace building. We were told that it is conducted on a plan similar to that of our military academy at West Point, and contained between three and four hundred students. There was a military school here at the time of our war with Mexico. The cadets enlisted for the defence of Chapultepec, fought splendidly, and many of them were killed in the battle. A few years ago a monument commemorating their gallantry was erected in the garden on the side of the hill, and it should be visited in honor of the brave youths who fell here.

"And this brings us to the incidents of the capture of Chapultepec.

"'Do you see that large building back of the grove?' said our guide, pointing his finger in an easterly direction.

"We followed the direction with our eyes, and indicated that we saw it.

"'Well,' said he, 'that is Molino del Rey, the King's Mill, and there's where some of the hard fighting took place. Just beyond it is the Casa Mata, and over there, and there, are the fields of Contreras and Churubusco. From this point you can take in the whole range of General Scott's battles in the valley that resulted in the fall of the city of Mexico.'

"We studied the situations, and since then we've read up the history of the battles, and will try to tell you something of them."



THE VALLEY OF MEXICO, FROM THE AMERICAN OFFICIAL MAP.

Frank and Fred kept their promise, and wrote an account which we

are permitted to give in their words:

"It will be remembered that before the battle of Buena Vista a part of General Taylor's army was sent to join General Scott in his advance upon the capital of the republic. General Scott proceeded to besiege Vera Cruz and the Castle of San Juan de Ulloa, which protects it. The fortress is a strong one, and the Mexicans were so confident of the abilities of Vera Cruz to hold out against any force the Americans could send against it

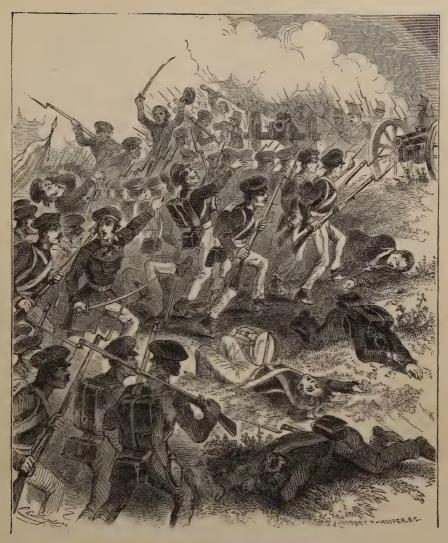


VIEW OF THE FORT OF SAN JUAN DE ULLOA FROM VERA CRUZ.

that they left a garrison of only 5000 men, did not provision the city against a siege, and neglected to send away the women and children. The Americans besieged the city on the land side, the whole army landing without accident or opposition. The siege began on the 9th of March, 1847, and on the 26th of the same month the city and castle surrendered.

"Then began the march towards the capital as soon as the provision trains acade he made march.

"Then began the march towards the capital as soon as the provision trains could be made ready. The Mexicans made no opposition until the Americans reached the foot of the mountains, where the battle of Cerro



BATTLE OF CERRO GORDO.

Gordo was fought on the 18th of April, the Mexicans being commanded by General Santa Anna, and the Americans by General Twiggs. The Mexicans were defeated with a loss of 1000 killed and wounded and 3000 prisoners, including five generals and many other officers. General Santa Anna fled from the battle-field on a baggage mule, and the Mexicans were very much demoralized.

"Perote and Puebla were occupied soon after the victory of Cerro 16

Gordo, and then the army halted in its advance to wait for reinforcements which were on their way from the United States. It was not until the beginning of August that General Scott was ready to move towards the capital, and when he gave the order it was with only 10,738 men to follow him. Colonel Childs, with 1400 men, was left at Puebla, which was a very important point on the road by which supplies were to be forwarded.

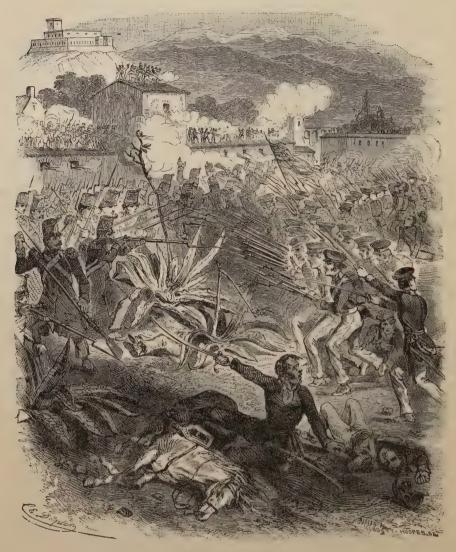


GENERAL SANTA ANNA.

"Three days the army struggled up the eastern slope of the mountains that surround the valley. When they looked down on the beautiful valley, with its lakes glistening in the sun, the towers of the city rising in the centre of the level expanse, the black fields of lava, the hills rising here and there, the green expanse of cultivated land, and the causeways covered with people, the soldiers gave a loud cheer, and in spite of the fatigue of the ascent were ready to dash forward to battle.

"To oppose them General Santa Anna had assembled an army of three times their number, and erected forts to guard every approach to the city. After carefully surveying the ground, General Scott decided to advance to the south of the lakes. If he had continued on by the National Road, which leads from Mexico to Vera Cruz, he would have encountered the fortress of El Peñon, on which fifty-one guns had been mounted. The

BATTLE OF CHURUBUSÇO, -- CHARGE OF "THE PALMETTOS,"



STORMING OF MOLINO DEL REY.

engineers said he would lose one-third his army in capturing the fort, and hence his decision to go to the south of the lakes.

"General Worth's division advanced to San Augustin, nine miles from the city, where there is a large field of lava known as the Pedregal, which artillery or cavalry could not cross. The Mexicans had intrenched camps at Contreras and also at San Antonio, and General Scott decided to attack both these points at once. Generals Twiggs and Pillow were to advance upon Contreras while General Worth moved towards San Antonio.

"During the night of the 19th of August it rained, and the men camped without fires. Early in the morning of the 20th the order to march was given. The Mexicans were taken a good deal by surprise. Contreras was won by a sharp fight that did not last long, and the invaders pushed on to San Angel, which was evacuated as they approached. Some



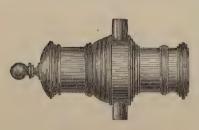
GENERAL SCOTT'S ENTRANCE INTO MEXICO.

of the cannon taken by the Americans were those which were lost at Buena Vista, and the men who lost them were the very ones who had the good-fortune to make the capture.

"San Antonio was abandoned before the Americans reached it, but a stand was made at Churubusco, farther on; this was attacked in front and rear at the same time. Santa Anna considered it the key of the Mexican position, and the place was defended by 30,000 men. They made a good defence, and at one time it looked as though the assailants would be repulsed. Some of the most gallant fighting of the day was performed by a South Carolina regiment ('The Palmettos') in a charge upon a Mexican force largely their superior in numbers and backed by a battery of artillery.

"Churubusco and Contreras had fallen, and it would have been easy for the Americans to advance and take possession of the city before the Mexicans had recovered from their panic. Under injudicious advice, General Scott offered an armistice, to enable negotiations for peace to be made; it was promptly accepted and lasted a fortnight, but resulted in nothing. When Santa Anna felt that he had repaired his damages, he sent an insulting message to General Scott, and hostilities were resumed.

"Very early on the morning of September 8th the advance began, the troops moving in the direction of the Casa Mata and the Molino del Rey. The Molino was attacked by the artillery and afterwards by the infantry. At one time the Americans recoiled under the shower of bullets and their heavy loss in men and officers, but it was only for a moment. The Molino was carried, the Mexican cavalry behind it was put to flight, and the road



CAPTURED AT CHAPULTEPEC.

was clear to Chapultepec, the home of the Montezumas and the viceroys. For four days the army rested, and on the 12th the order to advance was given.

"The cannonade against Chapultepec began at daybreak on the morning of the 13th, and at eight o'clock General Quitman advanced along the Tacuba road, and General Pillow from the Molino del Rey.

The Mexicans fought stubbornly, but the Americans pressed on, and while the garrison was occupied in one direction an attack was made in another, and the position was taken. When the Mexicans fell back to the city, General Scott ordered the pursuit to be continued on both the roads leading from Chapultepec to the city gates of Belem and San Cosme. Away went the pursuers; and here, as stated elsewhere, they found great advantages.

tage from the aqueducts. Springing from one archway to another, they managed to dodge the Mexican bullets and get close to the gates. There they adopted the plan of boring through the houses, as they had done at Monterey, and in this manner by sunset they were practically, though not literally, in possession.

"This was the end of the fighting. At midnight a party of Mexican officers came out with a flag of truce and proposed the surrender of the city, and at the same time the remnant of the Mexican army marched out of the northern gate and fled to Guadalupe Hidalgo. On the morning of September 14th General Scott entered the city, and, surrounded by his staff and principal officers, rode in triumph to the Grand Plaza through the crowd of men that thronged the streets and scowled as they clutched their knives and muttered threats against 'Los Yanqueis!' He was followed by six thousand men of his army; their uniforms were ragged and soiled with mud, but their weapons were in ready condition for service, which happily was no longer needed.

"Negotiations for peace were begun immediately, and on February 2, 1848, the treaty was signed at Guadalupe Hidalgo. It was ratified in the following May, and as soon as it could be done conveniently, Mexico was evacuated by the American troops, and the two nations became friends again. And we shall all hope that the friendship will never be broken.

"Commenting on the war with Mexico, General Grant said: 'For myself, I was bitterly opposed to the measure [the annexation of Texas], and to this day regard the war which resulted as one of the most unjust ever waged by a stronger upon a weaker nation. It was an instance of a republic following the bad example of European monarchies, in not considering justice in their desire to acquire additional territory.'"



A SCENE OF PEACE.

CHAPTER XVI.

THE NOCHE TRISTE TREE.—A BRIEF HISTORY OF THE CONQUEST OF MEXICO.—
DEPARTURE OF CORTEZ FROM CUBA.—HE LANDS IN YUCATAN.—FOUNDING
THE CITY OF VERA CRUZ.—DEFEATING THE TLASCALANS.—ENTRANCE TO
TENOCHTITLAN.—RECEPTION BY MONTEZUMA.—RETURN TO THE COAST.—EXPULSION OF THE SPANIARDS.—BESIEGING THE CITY WITH THE AID OF THE
TLASCALANS.—CAPTURE OF THE CITY, AND DEATH OF GUATEMOZIN.—BEGINNING OF THE RULE OF THE VICEROYS.—THE CHURCH OF GUADALUPE.—STORY
OF THE MIRACULOUS APPARITION.—RELIGIOUS AND POLITICAL HOLIDAY.—
PILGRIMAGE TO GUADALUPE.—PENITENTES; THEIR SELF-INFLICTED TORTURES.

THE tree of Montezuma and the traditions connected with it called the attention of the youths to another famous tree of Mexico. It was the Arbol de la Noche Triste, or tree of the mournful night.



THE NOCHE TRISTE TREE.

When it was mentioned to Doctor Bronson the latter said:

"Before we go there I wish you to inform yourselves about the tree, so that we can talk intelligently concerning its historical associations."

Frank and Fred promised to comply with his request; and in their case a promise was equivalent to its performance.

A day was set for the excursion to Popotlan, where the tree stands. On the morning of that day Frank said they were ready with their story; it was presented to the Doctor at the breakfast-table, and pronounced satisfactory. Here it is as it was read by Fred:

"Those who have studied history carefully know that Cortez sailed from Cuba to make the conquest of Mexico. He had a fleet of eleven



DEPARTURE OF CORTEZ FROM CUBA.

vessels; the largest of them was of one hundred tons, three were of seventy tons each, and the rest were open barks. His whole force consisted of one hundred and ten seamen, five hundred and fifty-three soldiers, two hundred Indians, and a few Indian women for servants. His regular soldiers consisted of sixteen horsemen, thirty musketeers, and thirty-two cross-bowmen; all the rest of the soldiers were armed with swords and spears. In addition to these he had fourteen pieces of artillery, with an abundance of ammunition; and he had sixteen horses, which were the first ever seen in America. This was the force with which he

started for the conquest of a people numbering millions, and ruled by a king, with a large army equipped with spears and bows and arrows, and protected by coats of mail of thick wadding.

"He landed first on Cozumel Island, near the coast of Yucatan, where he proceeded to convert the natives to Christianity. He did it in a very



THE FIRST MASS IN THE TEMPLES OF YUCATAN.

summary way: by calling on the natives to destroy their idols and embrace the new religion. When they declined to do so, he set his soldiers to breaking and overturning the idols and throwing them out of the temples. Then he erected an altar, reared a cross and an image of the Virgin, and ordered one of the priests who accompanied him to celebrate mass, which was done in the presence of his kneeling followers.

"From Yucatan he sailed for the coast of Mexico, which he reached at the mouth of the Tabasco River. Here he landed, and after a fight with the Indians, which was won chiefly by the terror inspired by his horses and the sound of the guns, which the natives took for thunder, he occupied Tabasco. Shortly afterwards he had another battle with a force which his historians estimated at 40,000. This army he defeated, and he celebrated mass on the battle-field in thanks for his triumph over the heathen.

"'Then,' writes Diaz, 'after dressing our wounds with the fat of the

Indians whom we found dead, and having placed good guards round our post, we ate our supper and went to our repose.'

"Peace was arranged with the Indians on condition that they should submit to the authority of Cortez, and accept the religion he brought them. They had no alternative, and immediately became Christians. When this was accomplished he continued along the coast of Mexico, and laid the foundations of Vera Cruz. There he first heard of the Emperor Montezuma, and the story of his great wealth determined Cortez to make the conquest of Mexico."

"That was where he burned his ships," remarked Frank, as Fred paused for a moment.

"Yes," answered Fred, "he burned his ships partly in order to make retreat impossible, and partly that he might increase his force with the 110 seamen. He left a small garrison at Vera Cruz, and then advanced



BATTLE WITH THE INDIANS.

towards the city. Taking part with the tribes who had been annoyed by the tax-collectors of Montezuma, he secured their friendship. He conquered the Tlascalans in four severe battles, and then induced them to join him in a march upon Montezuma's capital, as they were not on good terms with the Aztecs; but he could not prevail upon them to renounce their religion and adopt Christianity.



FIRST VIEW OF THE MEXICAN CAPITAL.

"He reached Tenochtitlan, Montezuma's capital, in November, 1518, with 6000 Indian allies, in addition to his force of Spaniards. Ambassadors from Montezuma met him on the road, and he was welcomed with great courtesy and ceremony. A palace was assigned to him, and he immediately fortified it. While he was laying his plans for taking possession of the country and its immense store of gold, he learned that his garrison at Vera Cruz had been attacked and one of his soldiers killed; and not only was the soldier killed, but his head was sent to Montezuma.

"The death of one soldier may not be thought a very serious matter," Fred remarked, by way of explanation, "but it was so for Cortez. Down to that time the Mexicans supposed the Spaniards were supernatural beings; they were the children of the sun, and therefore immortal, but the receipt of the head of the slain soldier undeceived them.

"He at once took Montezuma prisoner, and having captured the men who attacked Vera Cruz, he burned them alive in the public square in front of the palace. Montezuma took the oath of allegiance to the King of Spain, and was set at liberty after paying an enormous amount of gold and precious stones by way of ransom.

"Just as Cortez thought everything was quiet he learned that the Governor of Cuba had sent an army under Narvaez to deprive him of the command of the country. As the army was much larger than his own, the situation was desperate; but Cortez was equal to it.

"He left 200 men in the city under charge of one of his officers, and then hastened to the coast, where he defeated and killed Narvaez, and added his men to his own forces. Thus the army of 900 men, with eighty horses and twelve pieces of artillery, that had been sent to conquer Cortez became really his reinforcement. He returned with them to Mexico, where, meantime, the people had risen against the Spaniards, killed Montezuma, and under their new emperor, Cuitlahua, driven the invaders out of the city. If you want a brilliant account of the evacuation of the city, you will find it in Prescott's History; it is too long to be given here.

"There is a reminiscence of the terrible retreat," continued Fred, "which is shown to every visitor to the city. It is the Salto de Alvarado, or Alvarado's Leap, in the street which bears the name of that warrior. They tell us that where the line of house-fronts is broken, and shut off by an iron railing, was formerly a canal in the ancient city of Tenochtitlan.



THE MEETING OF CORTEZ AND MONTEZUMA.

This is said to be the exact spot where Alvarado leaped across the canal, and saved himself from the death which overtook so many of his comrades. He commanded the rear-guard, and was one of the few who escaped. Bernal Diaz says the opening was so wide, and the sides so high.

that no man in the world could have jumped across, no matter how strong might be his limbs."

"Now we are coming to the Noche Triste tree," remarked Frank.

"Yes," answered Fred. "Cortez is said to have sat all night under this tree at the time of the evacuation, lamenting over his misfortunes and laying plans for the future.

"Do you think it is really so?" Fred asked, turning to Doctor Bron-

son.

"The legend is a romantic one," the Doctor replied, "and I would not care to disturb it; but if I read the character of Cortez correctly, he was not the man to sit down and mourn under any circumstances. Quite likely he stopped under the tree on that eventful night of July 1, 1520; but it is more probable that he was planning what to do next instead of wasting his time in vain lamentations. It is time to go now," said he, glancing at his watch, "and we'll have the rest of the story at the foot of the famous tree."

Fred folded his manuscript and consigned it to his pocket, and then the trio, accompanied by their guide, proceeded to Popotla by the railway. Taking a car at the west side of the Plaza Mayor, they reached Popotla in little more than half an hour from the time of their departure. They passed through Tacuba, which was anciently an important town, but is now a suburb of the great city, with a population of between two and three thousand.

The tree is a species of cedar, called Ahuehuete by the Indians, and Sabino by the Spaniards. Down to a few years ago it was in fine condition, but one night a fire was kindled against it and seriously injured its trunk. Several of its limbs have since died and been removed; and to prevent its utter destruction by relic-hunters, the tree has been surrounded by an iron railing, and is carefully watched by a policeman. Visitors may pick up any twigs lying outside the railing, but they are forbidden to tear anything from the tree, however insignificant.

After inspecting the tree, and commenting upon the fact that it was certainly old enough for Cortez to have sat a whole night beneath it and indulged in any amount of lamentation, our friends resumed the story of the Conquest.

"During the retreat," continued Fred, "the rear-guard of the Spaniards was destroyed; the retreat lasted for six days, and then a battle was fought, on the 7th of July, 1520, on the plains of Otumba. Here Cortez was victorious, but he was not strong enough to attempt to retake the city.

"He went to Tlascala, where he assembled a large force of natives, and



THE BATTLE UPON THE CAUSEWAY.

again marched upon the capital. Meantime the Mexicans prepared for defence, and the Emperor having died of small-pox, which the Spaniards introduced, the throne was taken by Guatemozin, the son-in-law of Montezuma. Guatemozin assembled a large army and fortified the causeways, so that he believed the place impregnable; but he was not equal to the warlike skill of the Spanish commander.

"Cortez had again been 'reinforced' by the Governor of Cuba; the latter had sent two ships to the aid of Narvaez, of whose fate he was ignorant, and when these ships arrived at Vera Cruz they were seized, and the men of the expedition were easily induced to join Cortez.

"Approach by land being so well guarded, Cortez decided to attack the city by water. Timber for thirteen brigantines was prepared on the other side of the mountains, and carried on the shoulders of 8000 Tlascalans to the bank of a small stream flowing into one of the lakes. There the boats were put together, and though the Mexicans made many attacks, they were always defeated.

"Each boat carried a piece of artillery and twenty-five Spaniards, and the fleet was sufficient to wipe the war-canoes of the Mexicans out of existence. When all was ready the fleet moved to the attack, and at the same time the land forces proceeded against the city along three of the causeways.

"Altogether the siege of the city lasted seventy-seven days; it ended on the 13th of August, 1521, and that day may be taken as the commencement of the reign of the Spaniards in Mexico. Guatemozin attempted to escape in a boat, but was captured and treated as a prisoner of distinction.



THE CAPTURE OF GUATEMOZIN.

The Mexicans again endeavored to drive out their invaders, but were unsuccessful, and Guatemozin was put to death under circumstances of great cruelty. He was burned on a bed of coals by order of Cortez, along with several of his nobles and leading men.

"And this ends our story of the conquest of Mexico," said Fred. "Those who think it dry reading are at liberty to skip, but if they have read thus far there will be no need of doing so."

"What became of Cortez after the Conquest?" Doctor Bronson asked.

"He was rewarded by the King with the appointment of Governor and Captain-general of Mexico, and a marquisate with a large revenue. But his success aroused jealousy, as it generally does, and while he was busy with the conquest of the outlying provinces of Mexico his property was seized, and his retainers were imprisoned. He returned to Spain in consequence of this, was received with distinction, and returned to Mexico for new enterprises, but he found himself under the orders of a viceroy, who had been sent to rule over him.

"He went back to Spain once more, where, with great difficulty, he obtained an audience with the King, and was very coldly received. He soon dropped out of sight, and the closing years of his life were passed in utter obscurity in Seville."

"Very much like the closing years of the life of Columbus," Frank remarked.

"Yes," added the Doctor, "and you may continue the parallel further among American discoverers and conquerors. Americus Vespucius, or Amerigo Vespucci, died in poverty; Balboa and Sir Walter Raleigh were

beheaded; Pizarro was assassinated; Magellan was killed in battle; and De Soto never lived to know the value of his discovery of the Mississippi. Hendrick Hudson was forced into an open boat at sea by a band of mutineers, and never heard of afterwards; and Captain John Smith died in retirement after having passed some time in a French prison. Ponce de Leon, who went to Florida to find the fabled fountain of youth, was mortally wounded in a fight with the natives of that country, and his followers were forced into a disastrous retreat."

Absorbed with the train of thought aroused by Doctor Bron-



PONCE DE LEON.

son's remark, the youths silently accompanied that gentleman on the return trip to the city. Frank concluded that he would never lead an expedition for the discovery of a new world, and Fred decided that he did not care to make a name in history by the conquest of a country that had done him no harm.

In the afternoon they went to the hill which is notable for the church bearing the name of "Our Lady of Guadalupe." It is about three miles from the city, and in a direction opposite to that of Chapultepec. The present road is comparatively modern, the old one having been given up to the line of railway from the capital to Vera Cruz. The new road and the old one are parallel; the former has fourteen shrines along the way-side, where pilgrims to the church used to pause to say their prayers, but



THE CHURCH OF GUADALUPE.

the new one is not so well provided. The tram-cars run at a rapid rate, the mules often dashing into a gallop, but coming suddenly to a halt when the conductor blows his horn.

The youths inquired as to the origin of the church, which is the most famous of all the places of worship in the country, and the object of many a pilgrimage every year. The result of their inquiries was the following story:

"The Church of Nuestra Señora de Guadalupe stands on the spot where the Virgin Mary is said to have appeared to a poor shepherd, an Indian named Juan Diego, in 1531, ten years after the capture of the city of Tenochtitlan by Cortez. He lived in a mud hut near the base of the hill, and one day, his father being ill, he went to obtain medicine for him, and was stopped by the Virgin, who upbraided him for the slowness of the Mexicans in accepting the religion which the conquerors offered them. She announced that she was to be the patron saint of the Indians, and told him to go and tell the bishop what he had seen and heard.

"He went to the house of Zumarraga, who was then Bishop of Mexico, but was turned away unbelieved and almost unheard. The Virgin appeared to him again, and told him to gather some roses from the top of the rock and carry them in his blanket to the bishop. He did so, and

when the blanket was opened the picture of Mary was found to be painted upon it, and surrounded by the imprint of the roses. The bishop was incredulous at first, but when he reflected that the Indian could not paint,

and was too poor to employ an artist, he accepted the miracle, and it was soon after adopted by the nation.

"It was not easy to identify the spot, and so the Virgin appeared again and stamped her foot upon the ground. Immediately there burst forth a spring which is said to possess wonderful healing properties, and it has continued to flow ever since. A small chapel was immediately erected, and soon afterwards the foundations of the church were laid. Pope Clement VII. officially proclaimed Our Lady of Guadalupe to be the patron saint of Mexico, and the adoration of the picture spread throughout the whole of America and also to Catholic Europe.

"At one time," said Frank, in his account of the visit, "the church of Guadalupe was one of the richest in Mexico, second only to the great cathedral; but the greater part of its treasure was taken by the Liberal Government, and coined into money, at the time of the confiscation of Church property. The



STATUETTE OF THE VIRGIN MARY.

golden frame of the picture of the Virgin was carried away, but afterwards returned. The altar railing, of solid silver, was not disturbed. Its

value must be very great, as it is massive, and the metal is said to be of

the highest standard.

"The original painting is kept in an iron frame above the high altar, and is shown only on rare occasions. By paying a fee to the sacristan we obtained a view of it. The material on which the painting appears is of a very coarse fabric, but the picture is distinct, and its colors seem to be admirably preserved. Copies of the picture are to be seen everywhere. Hardly a house in the country is without one of them, and they are for sale in all shapes and kinds to suit the most economical purse. Peddlers offer them to you on the streets, and no pious Mexican would be without at least one image of the patron saint of his country.

"Pilgrimage to this place is constantly going on, but the great and especial day of the year is the 12th of December, the anniversary of the miraculous appearance. On that day thousands of pilgrims are here from all parts of Mexico and Central America, and at the conclusion of the ceremonies there is an exhibition of fireworks in front of the church. After this display the natives perform the *mitate*, one of their ancient dances, in one of the halls attached to the church. The high dignitaries of the church are present at the fireworks and also at the dance. According to what we learned of it, the mitate has a resemblance to some of the dances in the Hindoo temples of India. We are told that the priests facilitated the adoption of the Catholic religion by permitting the natives to retain some of their heathen customs, and the mitate is one of them.

"In the War for Independence the picture of Our Lady of Guadalupe was borne on the banners of the insurgents, and their rallying cry was 'Guadalupe.' The priest Hidalgo, who originated the insurrection, was so identified with the shrine and its use during the war that his name was incorporated with it and given to the town which surrounds the church. After the independence of the country was secured it was decreed that December 12th should be kept as a national holiday, and consequently the date is political as well as religious. The treaty of peace between the United States and Mexico was signed here on February 2, 1848, and is consequently known in history as the treaty of Guadalupe Hidalgo."

This is the church to which the Emperor Maximilian walked with bare feet from the city, three miles away. He established a title and decoration of the Order of Guadalupe, and during his brief reign it was conferred upon distinguished and other persons who had rendered, or might render, services to the empire or its ruler.

The mention of the devotional act of Maximilian in walking barefooted to the church of Guadalupe reminded one of the youths of an account he had read not long before of the way in which many of the pilgrims to the shrine were accustomed to inflict self-torture in days gone by. They lashed themselves and one another with whips, gashed their flesh with knives, and in other ways personally injured themselves. Of late years the practice has fallen into disuse, but occasionally a *Penitente*, as he is called, may be seen punishing himself for some real or fancied sin.



MAKING A PILGRIMAGE COMFORTABLY.

Doctor Bronson told the youths that in some parts of the country a favorite act of the Penitentes is to walk over cactus-leaves, or to crawl upon them on their bare knees. A cross is set up, in the yard of a church and the ground in front of it is strewn with the thorny cactus. On this dreadful pavement the Penitentes walk to the foot of the cross, and believe

that when they have accomplished the journey they have expiated all the sins committed by them since the last ceremony of the same kind was held. The Doctor said the priests had tried to abolish this practice, which was

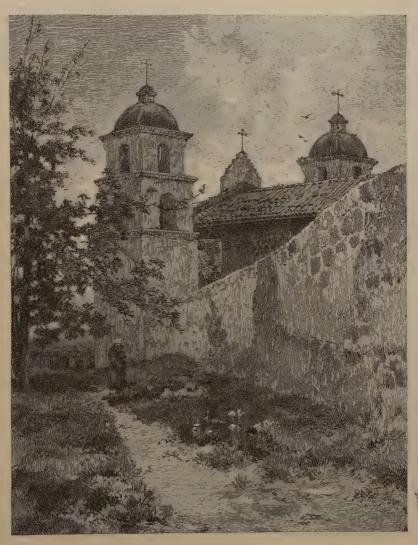


THE PENITENTES WALKING ON CACTUS-LEAVES.

established by the old Franciscan missionaries about 200 years ago, but it has so strong a hold upon the Indians that they refuse to give it up.

When the missionaries established the Order of Penitentes, their principal dogma was that no sin could be forgiven without confession and

expiation. The society increased in numbers, and at length became practically independent of the Church; it adopted several dogmas of its own, one of them being the converse of the original, and to the effect that no sin could be so great that it could not be washed away by expiation. This new dogma gave the priests much trouble, especially among the natives of New Mexico and the neighboring provinces of the republic.



SAN FRANCISCAN MISSION.

CHAPTER XVII.

AREA AND INHABITANTS OF MEXICO.—CHARACTER OF THE POPULATION.—INDIANS, EUROPEANS, AND MESTIZOS; THEIR RESPECTIVE NUMBERS AND CHARACTERISTICS.—INCLINATIONS OF THE MIXED RACES.—TENDENCIES OF EDUCATED INDIANS.—PRESIDENT JUAREZ AS AN EXAMPLE.—HOW THE INDIANS LIVE.—HOW THE SPANIARDS TOOK POSSESSION OF THE LAND.—CREOLES AND THEIR ORIGIN.—THE MESTIZOS.—LEPEROS AND THEIR CHARACTER.—ADROIT THIEVES.—PAWNING A CHURCH ORGAN.—THE LEPEROS AND THE BRIGANDS.—CHURCH OF SAN DOMINGO.—SHORT HISTORY OF THE INQUISITION IN MEXICO.—THE AUTO-DA-FÉ.

ON the day following the visit to the church of Guadalupe Doctor Bronson was occupied with some business matters that rendered his movements somewhat uncertain. Frank and Fred thought it a good opportunity to make some statistical notes about Mexico which they had



INDIAN OF NORTHERN MEXICO.

been for some time contemplating, but had postponed in consequence of there being no hurry about the matter. The figures were at hand whenever they chose to use them, and so they had no anxiety on the subject.

"First," said Fred, "we will see the extent of the country, learn how large the population is, and of what it is composed."

"Very well," was Frank's reply; "you may put down the figures and other memoranda as I read them off."

The youths settled down to their work, Fred at table with note-book and pencil, and Frank with an array of books before him. For an hour or two their heads were, as Dr. Holmes says, "ant-hills of units and

tens," as we shall see from the following, which they have permitted us to copy:

"Mexico lies between the 15th and 33d parallels of latitude, and the 86th and 117th meridians of longitude. Its greatest length is only a trifle less than 2000 miles, and its greatest width 750 miles. At the Isthmus of Tehuantepec it narrows to 140 miles; and this is the place where Captain Eads proposed to make a railway for transporting ships from one ocean

to the other. We'll have something to say about this proposition in another place.

"We cannot find that there has ever been an exact survey of the country or a careful census of the inhabitants. No two authorities agree concerning the area and population; but an average of the best of them shows that the country measures about 800,000 square miles, and has 10,500,000 inhabitants. It is divided into twenty-seven States, one Territory, and one federal district; the federal district includes the capital city, and may be



A MESTIZO WOMAN.

regarded as the equivalent of the District of Columbia in the United States, though it is much larger in area.

"One-half the population consists of mestizos, or 'mixed people;' onesixth are Europeans or their creole descendants; and one-third and more are of pure Indian blood. The following figures are from the last census:

Indians	 3,200,000
Europeans and their descendants	 1,500,000
Mestizos—mixed races	 5,800,000
m-4-1	10 500 000

"Señor Garcia Cubas, a Mexican gentleman who has written a statistical work about Mexico, published at the office of the Minister of Public Works, says of the different races of people in the country: 'The difference of dress, customs, and language shows the heterogeneous character of the population... The habits and customs of the people that make up the creole portion of the population are essentially European, and conform particularly to the fashions of the French, with some features borrowed

from the Spanish. Their national language is Spanish; French is considerably used; and English, German, and Italian are receiving increased attention. The nearest descendants of the Spanish, and those less mixed up with the natives of Mexico, belong by their complexion to the white race. The natural inclination of the mixed races to the habits and customs of the whites and creoles, as well as their estrangement from those of the natives, is the reason that many of them figure in the most important associations of the country, by their learning and intelligence, including in this number the worthy members of the middle classes. From this powerful coalition the force of an energetic development naturally results, which is inimical to the Indian race. Many of the natives themselves contribute to this fatal consequence, as they have joined the body I have referred to, and founded new families with the habits and customs of the upper classes.'"

"President Juarez may be cited as an example of the pure Indian of Mexico," Fred remarked, "who leaves behind him the traditions and customs of his race, and adopts those of the enlightened classes."

"I presume so," replied Frank, "and every Indian who has adopted the dress and ways of the European, and identified himself with the nineteenth century habits of thought, is helping to assimilate the aboriginal race with the new one. In this way the population will in time become essentially European, but it will take hundreds of years to bring about such a state of things. Railways, commerce, education, and liberal ideas will accomplish it; and the Mexico of the twentieth century promises to be a great improvement upon that of the eighteenth. There is now no political distinction on account of race, and the social one cannot last much longer."

Having given utterance to this sage remark, Frank blushed at his audacity in hazarding a prophecy, and referred again to the books before him.

"Wouldn't it be well," said Fred, "to say something about the natives, and compare them with the Indians of the Western States and Territories of our own country?"

"It certainly would," responded Frank, "and so here goes:

"The Mexican Indian is not much unlike the American one in general appearance, as he is of a brown or olive color, and has little or no beard. His cheek-bones are high, and he has slender limbs and a broad chest. Owing to his having been so long accustomed to carrying burdens on his back, he is inclined to stoop, while the American Indian stands erect. The Mexican Indian is also liable to stoutness, while the American one is not.



INDIAN GIRL SPINNING COTTON.

His dress is pretty much the same in all parts of the country, varied, of course, by the conditions of the climate. Short and wide trousers of coarse cotton cloth, a loose jacket of the same material, a serape or blanket for

cool weather or at night, a straw hat, and a pair of sandals form his costume. The different tribes are distinguished by the colors of the clothing, but this distinction is slowly being effaced."



PEDDLER OF WOODEN TRAYS.

"Now a few words about the creoles," suggested Fred.

"But I have not done with the Indians yet," replied Frank, "as this is a good place to say something about their houses. We have mentioned them in another place, but I want to add that in the hot country the Indian dwelling is made of wood, thatched with palm or banana leaves, while in the uplands it is of adobe, with a flat roof covered with clay supported by beams and stamped or beaten hard. A fire is generally kept burning day and night, and near it are the cooking utensils, which cost altogether only a few dollars at most. The hut has no furniture except a few stools and some mats of cane or rushes, which serve as beds at night and seats by day. A whole family lives in a space which we should consider small for one person and altogether too restricted for two.

"When the Spaniards conquered the country they took

possession of the lands and everything else; they allowed the Indians only sufficient space for their villages, and a plot of ground 3600 feet square for agricultural purposes, which all the inhabitants of a village were to cultivate in common. They still have this common garden, but the majority of them

abandon their rights in it, and earn their living by hiring out with landowners or miners. In former times a Spaniard spoke of himself as gente de razon, or man of intelligence, while he designated the Indian as gente sin razon, a man of no understanding. The Indians accepted this distinc-

tion, and often speak of themselves in this way. Of course this is not the case with the superior ones, who have adopted the European ways of living.

"Now I come to the creoles," said Frank, "who are either Europeans or people of European parentage. They were formerly the ruling class of Mexico in every sense of the expression, but since the Revolution and the Laws of the Reform their position is changed, as they are compelled to recognize the equality of the educated Indian, which in olden times they absolutely refused to do. When Juarez, who, as already stated, was an Indian of pure blood, became President it was a great shock to the sensibilities of many of the old aristocrats, but they survived it because they were compelled to do so. The hostility has generally died out, but a good deal of it lingers and will remain for many generations."

"I am reminded," said Fred, "of a transaction which is attributed to the Pilgrim Fathers of New England when they landed at what is now Plymouth."



CHARCOAL VENDER.

- "What is that?"
- "They are said to have held a meeting, and passed the following preamble and resolution:
 - "" Whereas, it has been decreed that the saints shall inherit the earth;
 - "'It is therefore Resolved, that WE are the saints."
 - "The Spanish conquerors of Mexico evidently did not think it worth

while to pass any resolutions or hold any meetings," answered Frank, with a laugh. "They went ahead and inherited the earth without bothering themselves about formalities. The Indians were considered to have no rights that the white men were required to respect, and were made to

understand that it was owing to the great mercy and tenderness of the Spaniards that the natives were not slaughtered down to the last of the race. And there is little doubt that they would have been slaughtered had they not been needed for menial work and to make life easy for the newcomers.

"As before stated, the creoles have the manners, customs, and dress of Spain to a large extent, though they follow the fashions of France in several particulars. The account of a Mexican courtship shows how the women are secluded, as in Spain. The men



OF THE OLD ARISTOCRACY.

have the Spanish taste for gaming, bull-fights, and gallantry, and they have lost little of the polite forms for which Andalusia is famous. Where their means permit they are princely in their hospitality, and no grandee of Castile could stab his intimate friend with a stiletto more gracefully than can the Mexican creole in case of a misunderstanding. That the creole women are pretty and possessed of most fascinating manners is the testimony of all who have seen them.

"In regard to the mestizos," said Frank, "I will quote a few words from 'Mexico and the Mexicans,' and let you write them down."

Fred assented, whereupon Frank slowly read out the following:

"The noblest of the Aztecs fell in battle with the Spaniards. Their property fell into the hands of the victors, who at the same time became possessed of the families of those who had fallen. The rude warriors married the dusky daughters, who became their equals by baptism. It was not considered a mésalliance to marry a noble Aztec girl. The sons of Montezuma, who were educated in Spain, received the title of count. The Indian aristocracy adopted Christianity, and became amalgamated with the new population.

"The mestizo is thus the child of a white father and an Indian mother. He is a magnificent horseman; one might take him for an Arab as, lance in hand, he rushes past upon his light steed. In the warmer regions he wears, on Sundays, a carefully plaited white shirt, wide trousers of white or colored drilling, fastened round the hips by a gay girdle, brown leather gaiters, and broad felt hat, with silver cord or fur band around it. The mestizos include the great majority of the rancheros, or farmers, and the arrieros, or mule-drivers; many of them are educated, and take a leading part in law, politics, and medicine, where they often attain high rank. They are excellent soldiers, especially on horseback, and it is this class of Mexicans that have given the Mexican cavalry its high reputation."

"How about the leperos?" queried Fred. "Don't they belong among the mestizos?"

"Yes," was the reply, "that is what the books I am looking at say of them. They come from the union of the worst of the two races, and are said to possess the vices of both with the good qualities of neither. They are the class from which the thieves and beggars of Mexico are recruited. One writer says, 'A lepero is a thief from infancy, and is able to steal as soon as he leaves his mother's arms.' The Chief of Police says that nine

out of ten of the men and boys selling lottery tickets or newspapers on the streets are thieves and pickpockets, and their legitimate business is simply a cloak for the illegal one.

"Another authority says that on the line of the Mexican Railway from Vera Cruz to the cap-

ital nothing that two men can lift is left out-of-doors after dark. All car-couplings must be carried into the stations; and the rascals used to steal the spikes that held the rails to the ties until the company adopted the plan of riveting them to the rails after they were driven into place.

"Brantz Meyer tells about an Englishman who was walking along one of the principal streets of Mexico, when he suddenly felt his hat rising from his head. He



A CREOLE RESIDENCE.



GROUP OF MEXICAN HORSEMEN.

looked up and saw it sailing towards the window from which the thief had caught it by the dexterous use of a hook.

"Another story that he tells is about a Mexican who was stopped on the road by three others, who robbed him of his cloak. They told him to wait where he was and he would be able to make something by doing so; out of curiosity he waited, and in a little while an accomplice of the thieves came and handed him a pawn ticket. He accompanied the gift with a graceful bow, and explained that the cloak had been pawned for thirty dollars. 'We wanted the money and not the cloak,' the thief explained, 'and as the garment is worth at least a hundred dollars, you can redeem it and make seventy dollars by the transaction.'

"There was once a lepero who pretended to be converted by the preaching and teaching of a missionary, and the good man gave him employment as janitor of the church. One day an organ was delivered at the church, and the missionary appointed a time when it should be exhibited to his friends. The party assembled accordingly, and the mis-

sionary was surprised to find that the janitor was absent. He was still more surprised when he found that the organ had followed the janitor's example and was missing. The janitor had carried it away during the night to a neighboring empeño, and pawned the instrument for whatever he could obtain on it."

We may add to Frank's account of this gentry that the brigands were of the lepero class, though very often they had leaders of a higher rank in life. The Government has executed a good many of them in its efforts to break up the system of highway robbery, and altogether the natural instincts of the leperos have been greatly curbed in recent years.



AN ENCAMPMENT IN THE INTERIOR OF MEXICO.

They are almost always armed with either knife or pistol, and make ready use of these weapons on frequent occasions. At nearly every festival or assemblage of any kind, fights among leperos form a part of the proceedings. It is not customary to interfere between the combatants, the by-standers forming a circle and looking calmly on until one of them falls.

Fred laid aside his pencil and note-book, while Frank closed the volumes he had consulted. This done, the youths went out for a stroll, intending to submit the result of their labors to the Doctor when next they met him.

Their walk took them to the Church of San Domingo, which was once a magnificent building, but has suffered greatly in its proportions and decorations in recent years. It was the church of the Dominican



A MEXICAN GRANDEE,

order of priesthood, and had a large convent near it. The convent, or more properly monastery, has been destroyed, and the church has lost some of its parts by reason of the extension of streets which were needed for the business of the city.

Close to the church is the School of Medicine, which is partly supported by Government and partly by fees received from the students. The building was interesting to Frank and Fred because it was once the tribunal of the Inquisition, which was established in Mexico in 1571, and suppressed in 1813. Immediately after the suppression of the Inquisition the building was converted into a prison; afterwards it was the office of the Government lotteries, and then a barrack for soldiers. The Mexican Congress met here for a time; and in 1854 the

building was adapted to its present use as a School of Medicine.

One day the youths accompanied Doctor Bronson in a visit to the school, and while he was busy with medical matters they accompanied their guide in looking up the few traces that remain of the Inquisition. Some of the cells where prisoners were confined were shown to them, and also the room where they were tried. After their return from the inspection the youths tried to obtain a full history of the Inquisition, but were unsuccessful. Doctor Bronson told them that no satisfactory and impartial history of it had ever been written, all the works that have appeared on the subject being either very hostile or very friendly.

"Briefly we may say," added the Doctor, "that the Inquisition was formally established in the thirteenth century, and came to an end in the first part of the nineteenth; but trials and punishment for heresy had taken place as early as the fourth century. The Inquisition was more powerful in Spain than in any other country of Europe; and it never had any hold of consequence outside of Spain, Italy, and France, and the colonies of Spain. One historian (Llorente) says that during the whole period of the Spanish Inquisition—from 1483 to 1808—31,912 persons were burned

alive, 17,659 were burned in effigy, and 291,456 were subjected to rigorous pains and penalties. The accuracy of his statements is doubted, Prescott considering them greatly exaggerated and his figures most improbable; and other writers share Prescott's opinion.

"The decree by which the Inquisition was established in Mexico especially exempted the Indians from its operations, and thereby secured its popularity among them, as the public burning of Spanish and other heretics afforded much amusement to the natives, and was a sort of substitute for the human sacrifices of the Aztecs, which the Conquest had abolished. The Mexican Inquisition was under the special charge of the Dominican order, the same as in Spain, and hence was associated with the Church of San Domingo.



A SERMON IN THE CHURCH.

"There is," continued the Doctor, "a popular misapprehension concerning the *auto-da-fé*, or profession of faith. It is generally believed to be the burning of the condemned, whereas the *auto-da-fé* was simply the

public ceremony that followed the secret trial by the Inquisition. The members of the tribunal, and all others assembled with them, made a public *auto-da-fé*, or profession of their faith in Christianity and the doctrines of the Church. After this was done the list of the condemned was read, together with the punishments accorded to them, and then the victims



CHURCH OF SAN DOMINGO.

were handed over to the civil authorities for punishment. The trial and sentence were the work of the Church, but the punishment was that of the civil power only.

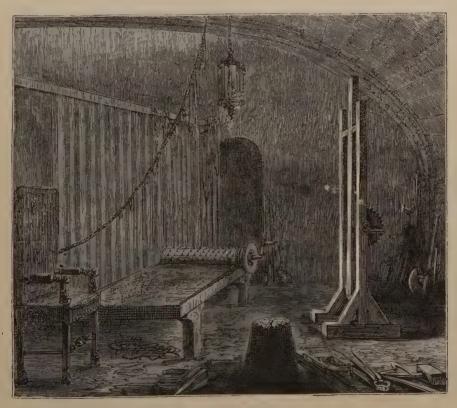
"The first auto-da-fé in Mexico was in 1574, when 'twenty-one pestilent Lutherans' were burned, and from that time on the public burnings were frequent. How many people perished in these affairs is not known; but it must not be understood that all the victims who suffered were burned alive. In most instances, even where the body of the condemned man was burned, he was killed by strangling; thus in one case where fifteen persons perished, fourteen were first strangled, and only one was burned alive. The penalty of death by burning was visited only upon heretics and sorcerers.

"And here," added the Doctor, "is a photograph of four victims of the Inquisition, whose skeletons were found in the wall of the building which was the seat of the tribunal in Mexico. They are supposed to have been built into the wall at the time of its construction, but nothing is actually known concerning them.

"The trials of accused persons were always held in secret; the unfortunates were not permitted to see their accusers, or even know their names. The punishments were death by fire or on the scaffold, imprisonment for life or shorter terms, with or without hard labor, forfeiture of property, civil infamy, and in mild cases public retraction and penance. Accused persons might be tortured to make them confess their guilt, and an accomplice might be a witness against an accused individual."

"What a horrible system!" exclaimed Frank.

"Yes," replied the Doctor, "but you must remember that it was very nearly the same form of procedure as that of the civil tribunals of the



TORTURE CHAMBER.

same countries and times, and not unlike what is known in some parts of the world at the present day. And, furthermore, remember that while the Inquisitors of Spain and Mexico were doing the deeds which have been proven against them, persecution was by no means unknown in England and America. Perhaps at the very hour when a victim of the Inquisition was being put to death in Mexico, the Christian people of Salem, Massachusetts, were hanging somebody accused of being a witch, or the English Puritans, under Cromwell, were putting Charles I. to death!"



PRISONERS OF THE INQUISITION.

CHAPTER XVIII.

ASCENT OF POPOCATEPETL.—"THE WHITE WOMAN,"—GEOGRAPHICAL POSITION OF THE VOLCANO.—FIRST ASCENT BY WHITE MEN.—AMECAMECA,—HIRING HORSES AND BUYING PROVISIONS.—EQUIPMENT FOR THE EXCURSION.—DANGER OF ROBBERS.—PEONS AND VOLCANEROS.—FIELDS OF BARLEY AND FORESTS OF PINE,—AN INDIAN TRADITION.—FATE OF THE GIANT AND GIANTESS.—ICE FROM POPOCATEPETL FOR THE CITY OF MEXICO.—SULPHUR FROM THE CRATER.—SLEEPING AT TLAMACAS.—ARRIVAL AT LA CRUZ.—THE ASCENT ON FOOT.—DIFFICULTIES OF CLIMBING IN THE RAREFIED AIR.— THE PICO DEL FRAILE.—CAUGHT IN A CLOUD,

I was the most natural thing in the world that the daily view of the snow-covered mountains, Popocatepetl and Iztaccihuatl, roused in the youths a desire to ascend to the top of the former. Doctor Bronson was not ambitious to undertake the expedition, but he encouraged the youths in their desire, and arranged to accompany them as far as the foot of the cone, where the saddle-horses are left. Frank was appointed the historian



A RESIDENCE IN THE FOOT-HILLS.



word of his account, which was as follows:

"Popocatepetl means 'The Mountain that Smokes,' and Iztaccihuatl is La Mujer Blanca, or 'The White Woman.' The name of the great vol-

cano is generally shortened to 'Popo' or 'Old Popo,' and for the sake of saving time and space I shall follow the fashion occasionally, and not give the name in full.

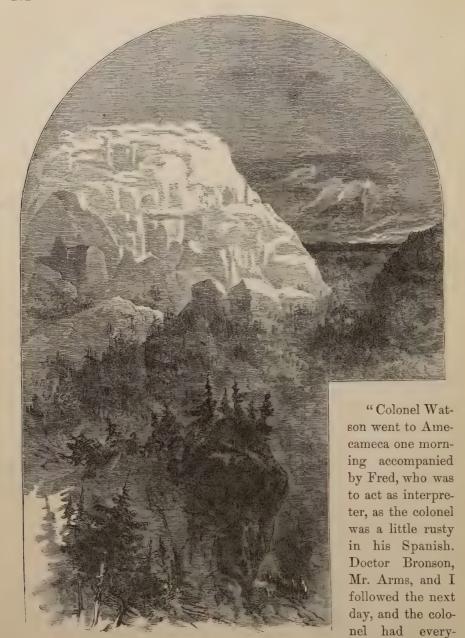
"The name of 'The White Woman' comes from the resemblance of the top of the ridge to the body of a woman lying upon a bier and covered with a shroud. The face is quite perfect, but the rest of the figure requires considerable aid from the imagination. Old Popo is not altogether a smoking mountain, as there are times when no smoke comes from it, though it constantly throws out fumes of sulphur; in one sense it may be called an active volcano, while in another it should not be so designated. According to the historians, it was quite lively during the first years of the Conquest, but for a very long time it has been peaceful enough, and only at rare intervals shows any signs of a return to business activity.

"Geographically it is forty-five miles from the city of Mexico in a south-southeasterly direction; it is in latitude 19° north and longitude 98° 30′ west, and according to the measurements of Humboldt and others, it is 17,540 feet high. The latest Mexican atlas makes it 17,884 feet; General Ochoa, the owner of the crater, says it is 19,673 feet, and still another measurement gives the height of the summit at 21,373 feet. You may take your choice of these figures.

"Popocatepetl was first ascended in 1522 by Francisco Montano, who was lowered 450 feet into one of the craters by means of ropes. He did not succeed in reaching the summit, nor did several other explorers who made the attempt during the time of Cortez.

"It used to be a much more tedious journey to the summit of Popo, as it was necessary to go on horseback about sixty miles from the city of Mexico, and the expedition required a large outlay for horses, guides, and escort, and consumed from ten to fifteen days. Now the railway is a great help in the matter, and we utilized it to the utmost. Before the railway was opened, the journey to Amecameca was made by diligence.

"Two American gentlemen, Colonel Watson and Mr. Arms, both of New York, were stopping at the hotel with us, and on learning that we wished to visit Popocatepetl, they invited us to join them. Of course we accepted at once, and Colonel Watson offered to make all the arrangements about horses and guides. His first step was to obtain a letter of introduction from General Ochoa, who owns the crater of the volcano and carries on an extensive business of mining for sulphur; the letter was addressed to his agent and major-domo at Amecameca, Don Domingo Zela, and asked him to facilitate the movements of the party in any way in his power, and allow us to sleep in his rancho at Tlamacas.



IZTACCIHUATL, THE WHITE WOMAN.

on our arrival. We went by the Morelos Railway, starting from the station of San Lazero at

thing ready for us

7.30 in the morning, and reaching Amecameca in about two hours. The distance is fifty-eight kilometres, or thirty-six miles.

"The town is of goodly size, and has a prosperous appearance. It was once the resort of robbers, who occasionally dashed out upon the roads in the direction of the city, and after plundering everybody who came in their way they retired as speedily as they came. The people of the town screened them whenever they were pursued by the military, and some very vigorous action was necessary before the business was broken up. Most of the three thousand inhabitants are Indians, and since the advent of the railway and the consequent increase in the number of visitors they show a laudable ambition to make the most that they can out of the strangers who come within their reach.

"Through the aid of Don Domingo Zela, Colonel Watson had secured a sufficient number of horses and mules to give everybody a good mount, and also for the transportation of the baggage. He had engaged some *volcaneros*, or mountaineers, men whose ordinary occupation is the transportation of sulphur from the mines in the crater; they know every inch of the way, and are accustomed to all the peculiarities of the mountain. Nobody should attempt to ascend Popocatepetl without a sufficient number of volcaneros; one to each traveller is none too many.

"Then there were several peons, or general servants, and there were arrieros to look after the animals and see that none of them were lost. Altogether we made quite a cavalcade, and must have presented an imposing appearance to the crowd that assembled to see us off.

"It did not take long to pack our baggage on the mules; we did not have a large quantity, and, moreover, it was in bags or bundles suitable for the pack-saddle. It included heavy blankets for keeping us warm at Tlamacas—where we were to spend two nights close to the snow-line—heavy overcoats, canned meats and other provisions, and our travelling-bags containing the little odds and ends that one wishes for his own use. We were told that we could get most of the things we needed at Amecameca, but it might happen that the usual supply-shop would be 'out' just then, and we had better make sure by procuring in the city the things that we wanted. Then we had goggles to protect our eyes from the glare of the sun on the snow, thick mittens and mufflers to keep out the cold from hands and faces, and heavy woollen stockings to put over our boots to prevent slipping on the ice.

"The boots that we were were not our ordinary ones, but heavy affairs specially made for the purpose, and having sharp nails in the soles to give us a good grip on the ice. We did not put them on until

reaching the snow-line, and when we came back we gave them to the volcaneros as souvenirs of our visit. If the fellows were sharp they probably sold the boots at a good price to the first party of tourists who happened along without this sort of an equipment.

"There was some difficulty in getting away, as Colonel Watson's horse insisted upon having a private dance just to show off his ability, and as



ALONG THE TRAIL.

the dance took place in the midst of the other horses, it made a disturbance until we could get out of the way. The example became contagious, and very soon some of the other horses joined in the dance, but we managed to quiet them all down without accident.

"We had been warned in the city that robbers occasionally interfered with visitors between Amecameca and Tlamacas, and if we could procure an escort it would be a wise precaution, and possibly save us from plunder or a fight. Colonel Watson brought a letter to the commander of the Rurales, or Rural Guards, at Amecameca, and that gentleman kindly gave us an escort of four men to accompany us to Tlamacas and back, waiting there while we were making the ascent of the mountain. Quite possibly

these fellows had been brigands, and may have carried on business in this very place, but this was no affair of ours. They served us faithfully, and we were not interfered with in any way.

"That robberies have been committed, and murder too, was evident from the great number of crosses along the road. There is said to have been a time when a man known to have five dollars, or even one dollar, in his pocket was not safe along this route. There were men who were ready to commit murder for a trifling amount; anybody who wanted to be rid of the presence of another had only to mention it to one of this gentry, and accompany the mention with a suggestion that it would be worth five or ten dollars to have the obnoxious individual disappear. In a day or



DWARF PINES AT A HIGH ELEVATION.

two he would be found dead by the way-side; a slight stir would be made by the police, but if no reward was offered for the murderer the affair was soon forgotten.

"At any rate, that is what the chief volcanero, who acted as our guide, told us, when we asked him about the crosses. But before we go out of Amecameca, or Ameca, as it is often called, let me say that it is a very pretty place, and reminded us of Interlachen or Meiringen, in Switzerland. It is 8000 feet above the level of the sea, lies in a sort of valley, and has



THE DOME OF POPOCATEPETL FROM TLAMACAS.

an abundant supply of water, which rolls down from the mountain and sparkles in numerous rivulets that flow through every street. The water serves to keep the streets clean, and the clean streets seem to have impelled the inhabitants to keep their houses in presentable condition; the walls are white or in bright colors, and altogether Amecameca is one of the most attractive little towns we have seen since we crossed the Rio Grande.

"There was a crowd of people in the Plaza Mayor, and in the marketplace, and the people seemed to move around more actively than in the capital. Perhaps it was the greater purity of the air, though one might

think that its increased rarity would have an enervating effect. Anyhow, it was cooler at Ameca than in the city, and that may have been the cause of it. Many persons predict that this little town at the foot of the great mountain will be a fashionable resort at no distant day, as it certainly has many attractive features.

"We had a ride of fifteen miles to the rancho of Tlamacas, where we were to spend the night. The pack-mules went off in advance, while we sat down to a good breakfast which the colonel had ordered in the Hotel Ferrocarril. Then we mounted our horses, and after the dance I have mentioned we got away.

"Our road led among fields of barley, the lines between them being shown by hedges of maguey or other members of the cactus family, and now and then by rows of poplar and willow trees. The way ascended with more or less steadiness, and after a time we passed from the cul-

tivated ground into forests of pine and other mountain trees. Some parts of the lower hills were devoted to pastures, and the cattle in them were in good condition. They are nourished upon a rich bunch-grass that grows here; and scattered about here and there we saw a good many thistles, together

with beds of mountain flowers. We passed a few haciendas, the last being that of Tomacoco, where there is a church very much in ruins.

"The pine forest begins after we leave the plain, and as we go up among the hills the pines are reduced in size, as they always are on the sides of high mountains. Our horses have hard work to

MEXICAN SAW-MILL.

scramble up the steep path, but they are evidently accustomed to it and toil on bravely. The guide warns us to be very careful in case we dismount, as the horses have a trick of snatching their bridles out of one's hands and starting down the mountain at the best speed they can make.



HACIENDA OF TOMACOCO.

Fred's horse tried this and succeeded, but he didn't go far, as he was caught by one of the soldiers, who happened to be in the rear, where the path was narrow.

"Do not suppose that the trees were small; some of them were two feet and more in diameter and seventy or eighty feet high, and the air was full of the sweet resinous odor for which a pine forest is famous and that is so welcome to most nostrils. For one, I do not know a more charming perfume than that of a forest of pines; and Fred agrees with me in this. It was difficult to realize that we were in Mexico. Had I been brought here blindfolded, and then asked to guess where we were, I should have named New England, Wisconsin, or California long before thinking of the land of the Aztecs. We passed several saw-mills of the most primitive character. They were operated by two men, one standing above the log and the other below it, and alternately pushing and pulling the saw. The

cutting was done by the downward stroke of the saw, as in the ordinary saw-mills of the Eastern States.

"Higher and higher seemed the great mountain as we slowly zigzagged in his direction. Sometimes he was hidden from our view by the trees or the shape of the hills, and again he came suddenly before us and seemed



VOLCANEROS (MINERS).

to signal us to persevere. Up and up we went; and when we reached Tlamacas we were 13,000 feet above the sea, or more than 4000 feet above the town whence we set out in the forenoon.

"Our guide told us that there is a tradition among the Indians that Old Popo and the White Woman were once living beings. They were a

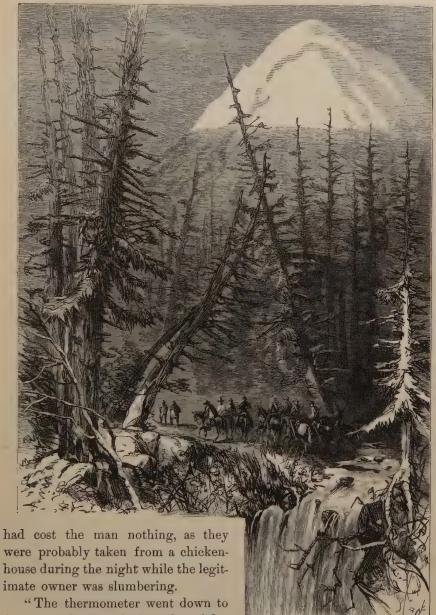
giant and giantess, and for some disobedience of the gods they were changed into mountains. The giantess was struck dead, and that is why she lies stretched out on her bier and covered with a white robe; Old Popo was the giant, and he was merely rooted to the spot where he stood. He shows his grief by occasionally shedding tears of lava, which rolls down in great floods, and in the sobbing and sighing that form a part of his weeping he breathes huge volumes of smoke. Sometimes his grief is so great that he shakes in agony, and then the whole earth is moved. Evidently he doesn't feel as badly now as he used to, as he has behaved very well for three centuries and more.

"It was lucky we brought a supply of bedding and provisions, for there was absolutely nothing at Tlamacas except some huts of rough boards and stone. The rancho stands in a valley, and we descended quite a little distance before reaching it; this descent seemed to us a waste of labor, as we would be obliged to make up for it by another ascent.

"Several times during the day we met donkeys and mules laden with ice and sulphur, the two commodities which are produced by the great mountain. Ice is cut from the places where it accumulates. The city of Mexico has long been supplied from here, just as the cities at the base of Mount Etna are supplied from that famous volcano. It is packed upon mules or donkeys and carried to the railway or to the canal at Chalco, whence it is brought to its destination. The sulphur is taken from the crater, as we shall presently see, brought as far as the snow-line on the backs of men, or slid down the steep side of the mountain; and from there it goes to the railway on the backs of beasts of burden.

"Ice-machines in the city have somewhat interfered with the business of the Indians who bring ice from the mountain, and may possibly break it up altogether. The ice is like that from glaciers all the world over, and resembles snow more than it does the product of the New England lakes and rivers in the winter season. It is sold in the city as nieve (snow), and the boys who peddle ice-cream in the capital call out, 'Nieve! tome nieve!' as they go about with their wares.

"We managed to sleep fairly well in the huts at Tlamacas, and were tired enough to go to rest very early. From our supply of canned provisions we made up an excellent supper, and there was a material addition to it in the shape of some fresh chickens, which one of our muleteers had brought along just as a speculation. He argued to himself that we would be glad to buy chickens in addition to the stock of food we had on hand, and so we were. We gladly paid him double what the chickens would have cost at Amecameca. Mr. Arms suggested that possibly the chickens



house during the night while the legitimate owner was slumbering.

forty-two degrees during the night, and when we started in the morning it was forty-seven degrees. The vol-

IN THE PINE REGION.

canero was to call us at five o'clock; and for fear he would not be around



biscuits for an early breakfast, and were mounted and off before six o'clock. Between us and the volcano there was a strip of pines and then a

stretch of black volcanic sand up to the snow-line. It was a hard struggle for our poor horses, and Fred and I wished to dismount and spare them the exertion; but the guide warned us to save all our strength for the climb that we would be compelled to make on foot, so we stuck to our saddles in spite of our sympathy for the suffering brutes.

"We had a magnificent view as we ascended, and Doctor Bronson, who went no farther than the snow-line, said he was amply paid for his fatigue, even though he was obliged to forego the view from the top. We looked down into the Valley of Puebla, we studied the landscape as though it were an out-spread map, and we watched the sunlight playing on the hills and on the great cone that dazzled before us. Many times Fred and I were reminded of our ascent of Fusiyama, but we found the scene far more grand and extensive. The summit of Fusiyama is nearly four thousand feet lower than that of Old Popo, and it can be readily understood that the monarch of Mexico far surpasses that of Japan in grandeur. Fusiyama, too, does not exhibit any valleys like those of Mexico and Puebla, deep set in the encircling mountains, and gemmed with lakes that flash in the clear sunlight. And, furthermore, it has no towering peak like that of Orizaba to pierce the horizon, and no masses of mountains at nearly all the points of compass to suggest that the earth was once a raging sea that had suddenly become petrified.

"We reached the side of a deep barranca, and descended to where a stream dashed along a rocky bed. Then we slowly climbed the other side of the barranca, and a little way above it we came to the limit of the trees. They did not dwindle to tiny dwarfs a foot or so in height, as we often find them on mountains, but stopped all at once while yet of respectable size, though much smaller than when we first entered the pine forest. Beyond the barranca we entered the worst of the volcanic sand, and our horses stopped repeatedly to take breath as they waded through it.

"In about two hours after leaving Tlamacas we came to a rocky ridge on which was a cross.

"'This is La Cruz,' said our guide, 'and here you must leave your horses. They can go no farther.'

"We dismounted. According to Humboldt's figures, we were 15,000 feet above the level of the sea, and 2500 below the summit of the volcano. We were 1000 feet higher than the summit of Fusiyama, nearly as high as that of Mont Blanc, and 9000 feet above that of Mount Washington, and yet we still had almost half a mile of perpendicular height to make before reaching our destination!

"There was a wide strip of sand between us and the snow-line, and 19*

through this we walked painfully, slipping and sliding backward almost as fast as we went on. Our progress was very slow, and the effort required was great. Fred and I were glad that Doctor Bronson did not try it, as he would have been sure to break down long before the snow-line was reached. Mr. Arms is spare and tall and a fine walker, and Colonel Watson is a small man, full of youthful vigor. It was fortunate that they were, and it was also fortunate that Fred and I had had experience in hill climbing, and then, too, we were younger than either of the others.

"When we reached the edge of the snow we sat down and rested. Some of the peons had fallen behind, and we prided ourselves that we had



NOT A GOOD CLIMBER.

shown the Mexicans that Americans know how to climb high mountains without turning back for want of breath.

"We ate some of the solid food and drank some of the cold tea we had bottled expressly for the occasion before leaving Tlamacas. When we had thoroughly rested and refreshed ourselves we put on our spiked shoes, covered them with the woollen stockings, and, armed with alpenstocks and aided each by a volcanero, we attacked the great icy cone of the giant Popocatepetl. The volcaneros carried our overcoats

and had them ready to wrap around us whenever we stopped.

"Fortunately for us, the snow was in the best condition for ascending; it was like a very hard drift, softened by the sun just enough to give a good foothold but not sufficiently to let our feet sink more than an inch or so below the surface. Our principal guide went ahead and we followed in his tracks; every few minutes we paused to rest and breathe, and long before we reached the crater the lightness of the air was such that our halts were longer than our periods of ascent.

"The blood rose to our faces, our veins throbbed, and for a time our heads seemed on the verge of bursting. We appreciated the advice of a gentleman in the capital, that no one with the least tendency to heart trouble, or one with weak lungs or a tendency to corpulence, should undertake the ascent of the volcano; and if we were to add anything to the advice, it would be that everybody else should refrain from making the

attempt; it is the hardest venture we ever made in mountain climbing, and we certainly would not again undertake it or urge a friend to do so.

"We left to one side the Pico del Fraile, a pinnacle of porphyry that shoots up into the air like the spire of a church. There was a deep chasm like an enormous moat at the side of the Pico, and we asked our guide if anybody had ever passed the chasm and climbed to the dizzy top. His face wore a smile of incredulity as he pronounced the feat impossible, and furthermore said there was nothing there to pay for the effort. Colonel Watson asked him, in sheer bravado, if he would undertake to escort us there, but he shook his head without making any audible reply. It is quite possible that he suspected the colonel of 'chaffing.'

"Suddenly we were enveloped in a cloud so dense that we could see only a few yards in any direction. The guide ordered us to keep close together; and if by any accident we should become separated, we were to call out immediately, and also keep our faces and feet directed to the ascent of the mountain. We obeyed his instructions, but it was our goodfortune that the cloud did not long remain to trouble us. It disappeared as suddenly as it had come, and we had a fine view of the Valley of Puebla and of the great mountain, the White Woman. As we rose to and above its level it lost all resemblance to the recumbent figure that gives its name, and became nothing but a broken mass of rocks and snow-drifts."



"NO MOUNTAIN FOR ME!"

CHAPTER XIX.

THE ASCENT OF POPOCATEPETL CONTINUED.—LAST STEPS OF THE UPWARD JOURNEY.—LOSS OF LIFE ON THE MOUNTAIN.—HOW THREE INDIANS PERISHED.—THE CRATER OF THE VOLCANO.—HOW THE SULPHUR—MINERS EXIST.—DANGERS OF THE CRATER.—THE SOLFATARAS.—CAUGHT IN A STORM.—VIEW FROM THE SUMMIT.—SCENES IN THE CRATER.—A RAPID DESCENT.—TOBOGGANING ON A GRAND SCALE.—HOW THE SULPHUR—MINE ORIGINATED.—NO ERUPTION IN SEVEN THOUSAND YEARS.—RETURN TO AMECAMECA.—EXPLORATION OF THE SURROUNDING COUNTRY.—TOMBS AND THEIR CONTENTS.—CURIOUS INSTANCE OF PRESERVATION.—MONTE SACRO.—"MODERN ANTIQUITIES."—INDIANS WORSHIPPING THE VOLCANO.—EXPERIENCE WITH A RATERO.

"THE snow hardened a good deal as we neared the summit," continued Frank; "in fact it was much more like ice than snow, and the walking became more difficult every minute. In some places it was as



"HURRAH FOR THE TOP!"

smooth as glass, and but for our outside stockings and the spikes in our shoes we would have been constantly slipping. Even as it was we had a good many falls, but nobody was seriously hurt by them. There was no danger of a long slide down the mountain, as the guide took us along a route where there were many hummocks, or pillars of ice, so that we brought up against them whenever we had the misfortune to fall down.

"Our woollen mittens were a great protection to our hands, which often came in contact with these pillars and would have been cut by them, as their tops and edges were sharp. We are told that persons who have made the ascent without gloves or mittens



THE CRATER OF POPOCATEPETL.

have had their hands so badly lacerated that they could not be used for days afterwards.

"We had no serious accidents, which is not always the case with parties making the ascent of Old Popo. Sometimes the snow slides down in the form of avalanches, and occasionally the sand does the same thing. To be caught by one of these avalanches is almost certain death, but happily the guides know the mountain and its peculiarities so well that such accidents are rare. Parties have been overwhelmed by storms of hail in the same way that a party on Mont Blanc lost their lives several years ago. Considerable areas of sand and snow are sometimes set in motion by the tread of one's feet upon them, and the unfortunate climber who has caused it is carried down and dashed to death on the rocks below.

"One story that we heard was of three Indians who were descending the volcano. One of them saw a depression in the snow like a furrow, and thought it offered an easy footing. He went to it, and suddenly disappeared from the sight of his companions. As they moved towards the place to ascertain what had happened, they felt the crust sinking beneath them, and had barely time to scramble back before a considerable area disappeared in a crevasse. No trace of the missing Indian was ever found.

"It seemed as though our toil would never end, when suddenly Fred, who was in advance, gave a shout and sat down. He swung his hat in the air, and I wondered what he meant by it.

"'Here we are!' shouted Fred; 'we're at the crater.'

"I hurried up as fast as I could, and sure enough there it was, a great chasm a thousand or more feet deep, and fully half a mile across. The sides narrow somewhat, so that a little way down you can make out pretty nearly all of the outline. The bottom of the crater can be called flat in a general way, though it is the farthest possible from the ideal of a ball-room floor. Steam and the vapors of sulphur rise from solfataras scattered over the bottom, and from these solfataras the sulphur is constantly forming. The supply is inexhaustible, as the formation goes on a great deal faster than the miners can remove the product.

"We scrambled down perhaps 200 feet, to where the edge of the crater hung over like a precipice. Here there is a *malacate*, or apparatus for hoisting out the sulphur. The men working in the sulphur-mines descend and ascend by this apparatus; in fact there is no other way of getting in or out of the crater.

"Our guide told us that the men run great risks, as stones are constantly falling from the sides of the crater, whence they are dislodged by the frost and by the action of the steam and sulphur jets. Rumblings



BRINGING ICE FROM THE MOUNTAIN.

like the premonitions of an earthquake are frequently heard, and sometimes the ground trembles so much as to make one's footing unsteady. In addition to this is the effect of the sulphur, which rots the clothes of the men, and causes their teeth to fall out. They sleep in caves in the sides of the crater, and on two or three occasions a caveful of men has been

overwhelmed and killed by the stony avalanche. Altogether the place did not appear attractive as a residence, and I was not surprised to learn that the men receive high wages, and even at the rate of pay they are not easily obtained. They remain a month at a time in the crater without leaving it, and are then replaced by new men and allowed a vacation among their friends in the country at the base of the mountain.

"We could have been lowered down by the malacate, but concluded not to make the attempt. We could not do so without spending the night in the crater, and this we were not prepared for; Doctor Bronson would be waiting for us, and would fear some accident had happened; though, as for that matter, we could have sent one of the peons to tell him; and furthermore, we thought we should run more risk than we would be compensated for by the experience. A party of three gentlemen went down there a few weeks before we did, and one of them became exhausted, and his life was saved with great difficulty. Our guide said, whether truthfully or not we don't know, that a German gentleman died there a few years ago, and since then the miners do not desire visitors among them.

"The crater is not at the top of the mountain, the highest point of Popocatepetl being to the west of this great chasm, and about 1000 feet more elevated. It is a sharp cone, and so difficult of ascent that few have succeeded in reaching the summit. There is some dispute as to whether it has actually been ascended, as the Government offers a reward of \$500 to any one who proves that he has been to its top. Some American gentlemen in the capital city say it has been done, but the difficulty of officially proving the accomplishment of the feat would be more than the value of the reward. Hence it is not claimed at all; and consequently, the negative testimony favors the assumption that no one has yet scaled the height of Popocatepetl.

"We remained nearly two hours on the summit, shivering in the cold air in spite of our thick overcoats, while at the same time the heat of the sun scorched our faces. While we were there a borrasca, or storm, came on, and the air was suddenly darkened. We sought shelter beneath a projecting rock, and watched the cloud of snow as it eddied and whirled around the crater. At such times it becomes so dark in the crater that the men cannot work; they retire to their caves and wait till the storm is over. At the same time the fires of the solfataras become very distinct, and recall the description of Dante's Inferno.

"The storm lasted about twenty minutes and then cleared away, the sun coming out as brightly as ever and the air growing comparatively still. These storms are rarely of long duration, but they are to be dreaded whenever they come; the temperature falls far below the freezing-point, and the wind blows a gale. But down in the crater it is warm enough, in consequence of the steam and heat from the solfataras. The snow melts as soon as it strikes the bottom, and renders walking a matter of difficulty.



PACK-TRAIN FROM TLAMACAS.

"The story of our descent of the mountain is quickly told. The workmen had dug a straight trench in the volcanic sand, and it is down this trench that they send the sulphur by the simple force of gravity. It is placed in sacks, the sacks are piled on a *petate*, or mat of bulrush, and when once started the mat and its cargo slide down with great velocity.

"For two reals each of us hired a petate of one of the men at the hoisting-works, and with our volcaneros to guide the impromptu toboggans, we went down with great rapidity and ease and without accident. It reminded us of the descent of Vesuvius; the sand is much like that of the famous volcano of Naples, and we were very glad to be able to make use of it.

"I said we came without accident; for the sake of exactness I must add that Colonel Watson was pitched out of his vehicle at the end of his ride, and stopped with his head and shoulders buried in the sand. Fred had a similar experience, with the difference that he went in feet foremost; as neither suffered any injury, and was ready to laugh over the mishap, my original statement holds good.

"The Doctor had gone back to the sulphur rancho at Tlamacas, and thither we followed him as soon as we found our horses. It was too late to get to Amecameca that evening, and so we had another night among the sulphur refiners. The sulphur is brought here just as it is dug from the crater of the volcano; it is refined at Tlamacas and made ready for market, and is sent thence to Amecameca on the backs of donkeys or mules. General Ochoa says that in spite of its abundance he cannot compete at the coast towns with the sulphur from Mediterranean ports, and his only market is in the interior of Mexico. He intends to place some improved machinery at the edge of the crater, so as to reduce the expense of hoisting out the crude material; and in this way he hopes to lower his price. His plan is to run his machinery by means of the jet of air from one of the large solfataras, which he estimates at twenty horse-power.

"While we were absent on the mountain General Ochoa's agent told Doctor Bronson the following story about how the general came to own the mountain:

"'Serious attention to the richness and abundance of sulphur in the crater of Popocatepetl was first called by Baron von Humboldt; the existence of sulphur in the crater was known long before, as the Spaniards seem to have made use of it in the time of the Conquest. In one of his letters to the Emperor Cortez says, "As for sulphur, I have already made mention to your Majesty of a mountain in this province from which smoke issues; out of it sulphur has been taken by a Spaniard, who descended

seventy or eighty fathoms, by means of a rope attached to his body below his arms; from which source we have been enabled to obtain sufficient supplies, although it is attended with danger." There is other evidence that the conquerors obtained sulphur from the mountain, but their methods were of the most primitive character.

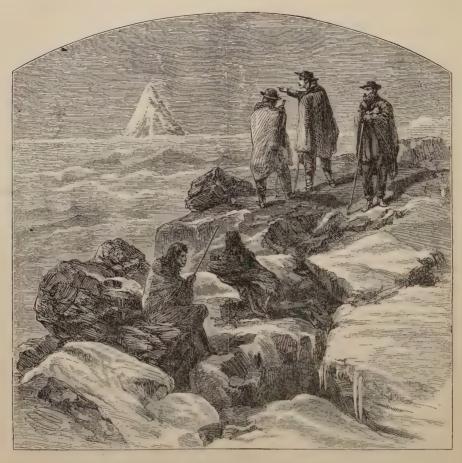
"About the year 1850, an enterprising Mexican named Corchado visited the crater, and brought away samples of the sulphur, which he carried to Puebla. A company was formed, and a considerable amount of sulphur was taken out, but owing to lawsuits and political troubles, the enterprise was soon abandoned. When General Ochoa was a student in the mining section of the military college his tutor was a gentleman who had



AN IMPROVED REFINERY.

known Baron Humboldt, and was greatly impressed with his remarks about the value of the sulphur deposits in the volcano. Through this gentleman's advice the general applied to the Government for permission to work the deposits, and he obtained a concession that gave him control of the mountain down to the limit of vegetation. Afterwards he purchased the rancho of Tlamacas, and established a refinery there; he has spent a great deal of time in the crater, and as he is an able geologist he has much to say about it that is interesting.'

"According to his theory, which is based on the lignite formed at the bottom of the crater, there has not been an eruption of Popo for seven thousand years; by that he means an eruption on a scale corresponding to the size of the mountain, and not an occasional disturbance, in which the



LOOKING FROM THE TOP OF POPOCATEPETL.

crater throws up a few discharges of stones and an unusual quantity of steam and sulphur vapors. In Prescott's 'History of the Conquest of Mexico' there is an account of an eruption in 1521, taken from a letter of Diego Ordaz, one of the captains under Cortez; but modern writers think that Ordaz mistook a violent thunder-storm on the summit of the volcano for an eruption. From what we saw at the crater we can readily believe that he made such a mistake.

"The view from the top of the mountain was the grandest we have ever taken, and one we will never forget while we live. The air is so clear that distance is strangely diminished; towns and villages that seem to lie at our feet are really many, many miles away, and as we looked to the eastward our guide told us that the streak of silver bordering the horizon was the Gulf of Mexico. Mountain, valley, table-land, lakes, plain, forest, all were spread before us, and in the range of vision from the top of Popocatepetl an area of twenty thousand square miles is said to be included. On one side of the mountain you can look down into the tierra caliente of the coast region, while on the other the eye is lost among the mountains and table-lands that stretch away until lost in the limitless distance."

So ends Frank's account of their visit to the great mountain of Mexico.



A DANGEROUS PLACE.

The party returned to Amecameca, and determined to remain there a day or two to make some explorations in the vicinity, and also to rest from their fatigues. During their stay Fred found the following description of a visit to the crater of Popocatepetl by an artist, Mr. Frank Kellott, which he carefully copied into his note-book. We have obtained the youth's permission to copy the account, and it is certain to interest our readers.

"We followed a narrow foot-path," said Mr. Kellott, "until we reached a shelf, where we were seated in a skid and let down by a windlass 500 feet or so to a landing-place. From this we clambered down to a

second windlass and a second skid, which was the most fearful of all, because we were dangling about, without anything to steady ourselves, as we descended before the mouth of one of those yawning caverns which are called respiraderos, or 'breathing-holes' of the crater. They are so called from the fresh air and horrid sounds that continually issue from them. But we shut our eyes and clung to the rope as we whirled round and round in mid-air until we reached another landing-place about 500 feet lower. From this point we clambered down as best we could until we came among the men digging up cinders from which sulphur, in the form of brimstone, is made.

"We took no measurements while in the crater, and heights and distances can only be given approximately. We only know that all things are on a scale so vast that Old Pluto might here have forged new thunderbolts, and Milton's Satan might have here found the material for his sulphurous bed. All was strange and wild and frightful.

"We crawled into several of the breathing-holes, but nothing was there

"We crawled into several of the breathing-holes, but nothing was there except darkness visible. The sides and bottom were for the most part polished by the molten mass which had passed through them, and if it had not been for the ropes around our waists, we should have slipped and fallen we knew not whither. The stones we threw in were lost to sound unless they hit upon a projecting rock and fell from shelf to shelf. The deep darkness was fearful to contemplate. What must have been the effect when each one of these breathing-holes was vomiting up liquid fire and sulphur into the basin where we stood? How immeasurable must be the lake whose overflowings fill such a cavity as this!"

The region around the base of Popocatepetl seems to have been densely peopled at some remote period, if we may judge by the ruins that lie scattered about, by the numerous tombs on the hills and in the valleys, and by the great quantity of pottery brought to light by excavations. Some antiquarians who have made researches here think that the cradle of the human race is to be found in Mexico, and that the people of this region gave the arts and sciences to Egypt and the rest of the Old World.

This conundrum was a perplexing one for our young friends. They did not try to solve it, but contented themselves with investigations on their own account.

The first object of their attention was Monte Sacro, which is in the town of Amecameca. It is a volcanic hill about 300 feet high, and contains a grotto that was turned into a hermitage at the time of the Conquest. A church was built there and a cemetery laid out, and as the traditions of the old time became mingled with those of later days, the

place acquired great sanctity. It abounds in tombs, some of them very old, and there were strange figures upon many of these resting-places of the dead, which none of the party could decipher.

At Tlalmanalco, a few miles from Amecameca, there are the ruins of a convent which was begun in the time of Cortez, but was never finished. There are the fragments of walls, with a portico formed by five arches;



RUINS OF TLALMANALCO.

these arches are supported by slender columns, which are covered with delicate carvings and suggest an Oriental character; they reminded our friends of what they had seen in temples in India, and Fred was so interested in them that he made a sketch of the ruins. According to M. Charnay, the carvings were executed by Indian artists, after designs furnished by the Spaniards. That the arches have stood so long is proof of the excellence of their construction.



BURIAL-GROUND OF TENENEPANCO.

All around this place great quantities of pottery have been unearthed. The story goes that thousands of vases and other precious things were found during the construction of the railway; they were divided among the contractors and are widely scattered, few, if any, of them ever having reached the National Museum.

Quantities of so-called antiquities were offered to our friends, but they had been warned long before and did not purchase any. The "antiquities" are modern, and so great is the demand for them that a considerable number of people is employed in their manufacture. The dealers heighten the imposition by enjoining great caution on the part of the purchaser, lest the Government shall ascertain that he is in possession of the precious relic, and despoil him of it.

A few years ago an enterprising antiquarian spent several days in

the neighborhood of Tlamacas, on the very foot of Popocatepetl. Among other places, he examined the cemetery of Tenenepanco, which seems to have been of considerable extent; he opened a great many tombs, and found that the bodies had mostly been buried in a sitting posture, after the manner of many ancient people. A curious circumstance which he discovered was that while the bones were so decayed that they crumbled to dust on being touched, the brain was very often intact and well preserved. He attributed this condition to the high elevation and the peculiar salts in the soil; one brain in particular was in perfect condition, while all the skull was mouldered away. He was in some doubt at first, but an examination showed that there was no mistake; the two lobes were there, and the lines of the blood-vessels were distinctly traceable. The same chemical combination that destroyed the bones preserved the soft tissues of the body.



VASES FOUND AT TENENEPANCO.

He took out a great number of vases, cups, marbles, necklaces, toy chariots, kitchen utensils, beads, caricatures of warriors, and many other things illustrating the life of the people who made them. Some of the cups were beautifully decorated, but unfortunately their exposure to the air caused the colors to fade. Ordinary utensils of earthen-ware were very soft when brought to light, and had to be handled with the greatest care, but they hardened by exposure and were solid enough after a few hours.

The youths learned that one tribe of Indians was accustomed to worship the great volcano as a deity at the time of the Conquest, and the practice is still maintained. They have caves in the forest on the easterly side of the mountain, and once a year they go there to perform their worship; no stranger is allowed to accompany them, and any one who persists in following them runs the risk of his life. Some years ago, so



CARICATURE OF AN AZTEC WARRIOR.

the story runs, an inquisitive white man followed a party of these Indians into the forest, and was never seen again. What became of him is a mystery; the Indians claimed that they knew nothing of his fate, and there is no positive proof to the contrary.

Frank had an experience of the skill of the Mexican thief during his stay at Amecameca. He had dismounted from his horse in front of the Hotel Ferrocarril, and while he was busy arranging the stirrup on one side of the saddle, a thief crept up and stole the other one. He not only stole the stirrup but the strap that held it, and the youth was obliged to invest in another.

"I'm surprised you've had nothing of the kind before," said the proprietor of the hotel when he heard of the occurrence. "That was the work of a ratero."

"What is a ratero?" Frank asked.

"He's a thief peculiar to this part of Mexico," was the reply, "or rather, I should say he belongs to the whole country, and the finest quality of him is produced around here. He will open and rob a trunk while carrying it on his back between the hotel and the railway-station; he will cut off the lining of a railway-carriage in less than two minutes, steal railway-ties, and anything else that he can lift; and as for ordinary thefts, his superior cannot be found anywhere. Several years ago the authorities of this town decided to light it with petroleum lamps, but the very first night they did so the lamps were stolen by the rateros, and the town was in darkness as it had been before."

Frank was able to add a few notes to what he and Fred had already ascertained about Mexican thieves. The youths discussed the subject, and came to the conclusion that the tropics produced more adroit pilferers than the temperate zones, at least such had been their experience.



ANCIENT AZTEC VASES.

"It is no wonder," said Fred, "that these people have become experts in stealing. Think how they have been despoiled by the Spaniards, who stole their country and all it contained, and reduced the people to the condition of a subject race. No wonder they have sought to revenge themselves on their conquerors, and their mildness of conduct is to be greatly admired, in view of what they have suffered. The condition of a Mexican peon is such that, if I may be permitted the paradoxical statement, he is obliged to steal in order to make an honest living."

Thus musing, they returned to the city with the Doctor and their late companions in the ascent of Popocatepetl.

CHAPTER XX.

RAPACIOUS CARGADORES.—OLD BOOK-STORES IN THE PORTALES.—PUBLIC SCHOOLS IN THE MEXICAN CAPITAL; THE PUPILS IN ATTENDANCE.—THEATRES AND HOSPITALS.—A THEATRE SUPPORTING A HOSPITAL.—THE BROTHERS OF CHARITY.— INSIDE THE THEATRES.—A PERFORMANCE OF OPERA.—A MINOR THEATRE.—LISTENING TO A MEXICAN PERFORMANCE.—BULL-FIGHTING IN MEXICO.—A DISGRACEFUL SPORT.—ORIGIN OF THE BULL-FIGHT.—MARIONETTE THEATRES.—THE PROCESSIONS.—MEXICAN LOVE FOR COCK-FIGHTING.—COMMINGLING OF RELIGIOUS CEREMONIALS AND AMUSEMENTS.—THE POSADA AND THE PASTORELA; THEIR PECULIARITIES.—KILLING JUDAS.

THE train by which our friends returned to the capital left Amecameca at 1.20 in the afternoon, and reached the San Lazero station at 4 o'clock. A crowd of cargadores swooped down on the baggage, and for a time threatened to disappear with it in as many directions as there were



WANTS A SOUVENIR

single pieces, but by dint of watchfulness and energy it was rescued and placed in charge of a runner from the hotel. The Morelos, or Interoceanic Railway, the one by which the party had travelled, is distinctively a Mexican line; it was built by Mexican capital, or capital borrowed by Mexicans, and the management is Mexican throughout. When finished it will be literally what its name implies, as it will connect the Atlantic Ocean at Vera Cruz with the Pacific at Acapulco. At the time our friends were in Mexico work was being pushed on the eastern division of the line (between Vera Cruz and the capital), and its managers were confident of completing it by the end of 1890 or 1891. At last accounts the completion of the western division (from the capital to Acapulco) was very much in the future.

It seemed to Frank and Fred that they had been away from the city for a month or two, when in reality they had been gone less than a week. The next morning they were out early to ascertain if any changes had taken place during their absence—whether any new buildings had been erected or old ones demolished, new streets opened, or new avenues laid out. They strolled through the *portales*, and stopped at the little shops established between the arches of the covered way that shelters the sidewalks from sun and rain, to bargain for old books and odds and ends of curiosities. Fred had received a letter from a friend at home asking him to pick up certain old books if they were to be found, and he made many



RUINS OF SAN LAZERO.

inquiries for the volumes. One after another, he found them, and the search roused in him a fever for book-buying which did not abate until he had invested several dollars in antique specimens of the printer's art.

"How does it happen that so many old books are sold at these stalls in the portales?" he said to Doctor Bronson on his return to the hotel.

"It comes from the confiscation of the Church property," was the reply. "For three centuries the churches and monasteries had been gather-

ing a fine collection of books for their libraries, and the confiscation of ecclesiastical buildings under the Laws of the Reform threw the most of these libraries into the market. Some of them were bought for speculation and others for private use; in either case they were pretty sure to



ON THE WAY TO CHURCH.

drift sooner or later into the hands of the dealers. Gentlemen familiar with the subject say that Mexico is to-day the best place in the world for a book-collector to find what he is looking for."

From the portales the youths extended their walk through several of the principal streets, and reached the hotel just in time for breakfast. On their way they passed a school just as the pupils were going in, and this circumstance gave a hint on which they acted at once.

They proceeded to collect information concerning the public schools, in addition to what they had already learned. They found that there were in the capital 101 free secular schools, with an aggregate attendance of 7400 pupils; then there were thirty-seven Protestant and twenty-four Catholic schools, all free—the former with 1300 pupils, and the latter with 4000. The Catholic schools are held in large buildings, as will be readily

seen from the number of pupils in the twenty-four schools; while the Protestant establishments are on a smaller scale. There are something more than 100 private schools for primary instruction, with an average of thirty pupils to each school. All the wealthy families have their children taught by private tutors or governesses, but the grade of their education is not high. The whole number of educational establishments in the city is a little short of 300, with an attendance in the aggregate of about 16,000.

Mention has already been made of the San Carlos Academy of Fine Arts, the Conservatory of Music, the Military Academy, and the Medical College. To these should be added the Law School and the preparatory schools and colleges of Architecture, Theology, Commerce, and Astronomy.



MONKS AT THEIR MUSICAL EXERCISE.

Some of these have been founded by the Government in recent times, while others are descended from those established by the Catholic Church in its days of prosperity.

Of some twenty hospitals and asylums of different names and kinds, fully two-thirds are the successors of benevolent institutions founded by the Church. The oldest is the hospital of Jesus Nazareno, and was founded by Cortez; he left a large endowment for it, and the hospital is still

supported by it in spite of many attempts by governments and individuals to break his will. The last effort in this direction was in 1885, when the will was sustained by the Mexican courts. The bad management of the hospital in its early days led to the founding of the San Hipolito hospital by Bernardo Alvarez in 1567. The pious people that joined him became



A BELLE OF THE OPERA.

a regular monastic order under the name of Brothers of Charity. The order was suppressed in 1820; the hospital fund passed into the hands of the municipality, and afterwards went to the general government. Since that time the city has managed the hospital, and provided the necessary funds for it.

One of the theatres in the city (the Teatro Principal) owes its begin-

ning to the necessity for money to support the Hospital Real, which was in the hands of the Brothers of Charity during the seventeenth century. The first theatre was in the hospital building, and the players were hired by the Brothers. Tradition says that the noise made by the performers and audiences seriously disturbed the sick, while the management of a theatre by a religious order caused a great scandal among pious people. The Brothers argued that, no matter what the origin of the money was, it was used for a good purpose, and they continued to enjoy the revenues of the theatre until the hospital was discontinued. The theatre, and with it part of the hospital, was burned one night in 1722, after the performance of "The Ruin and Burning of Jerusalem." The common people regarded the conflagration as a sign of heavenly disapproval, but the Brothers re-

built immediately. A few years later they rebuilt again; and in 1752 they laid the foundation of the present theatre, and finished it in the following year. It has been changed so much since that time that very little now remains of the original edifice.

The theatre is one of the institutions of Mexico, and liberally patronized. On this subject Frank wrote the following:

"The Teatro Principal is not what its name implies, as it is not the principal theatre at all. It may have been so when it was the only one, but it certainly has not been of much account in late years. The most fashionable theatre is the Nacional. Italian and French opera are given there, and the place is open for one thing or another pretty much the whole year. It is the fashion to have the commencement exercises of the military and other colleges in the Teatro



A STAGE BRIGAND.

Nacional, and since we came here there has been a grand concert in the building.

"We went to the opera one night. The performance was fairly good, but nothing remarkable, and we came away with the impression that the Mexicans go there more to see and be seen than to listen to the performance. The ladies were in full evening costume, and the men seemed to be about equally divided between dress-coats and double-breasted ones. There are boxes on two balconies and also around part of the parquet. The prices for seats and boxes vary according to the attraction, and the house is said to be generally well filled.

"Most of the men left their seats between the acts, some of them to smoke cigarettes in the lobby, and others to call on their lady friends in the boxes or send packages of dulces (sweetmeats) to them. The pretty women in the boxes seemed to enjoy being stared at, if we could judge by the way they smiled when opera-glasses were aimed at them. Many of the men paid no attention to the performance, but constantly eyed the beauties, and eyed them with their lorgnettes instead of their natural organs of sight. They came back just before the curtain rose on each act, and then each man stood up and made a survey of the horizon of boxes, reminding us of the quartermaster of a ship at sea looking for a sail. They tell us that the Mexican belles feel slighted if they are not thus stared at, and there is a keen rivalry among them as to who shall be the recipient of the greatest amount of attention.

"We have been accustomed in other parts of the world," continued the youth, "to hear the voice of the prompter at the opera, but we were not prepared for it in an ordinary theatre where the performance was a play in dialogue and not a musical one. We went one night to the Hidalgo Theatre to see and hear a Mexican play. The prompter pronounced every sentence before the actor did, and it was heard all through the house. It completely spoiled the play for us, and we left before it was over. What we liked a good deal better was the arrangement of the office, where there were five or six ticket-sellers seated in a row behind a grating, so that there was no delay in getting places.

grating, so that there was no delay in getting places.

"They showed us a plan of the theatre in which the seats were marked by pegs in holes. We selected three places, paid our money, and then the ticket-seller drew out the pegs and handed them to us. The pegs were numbered to correspond with the places, and we handed them to the usher as checks for our seats. We found that we could buy seats for a single act or for two acts, or three, just as we liked, on the same plan as in some of the cities of Europe.

"In addition to the theatre and opera, the Mexicans inherit the Spanish love for the bull-fight. This form of sport has had its ups and downs in the capital. It was abolished in the federal district for some time, but was recently re-established or permitted, and now there are bull-rings at the northern end of the Paseo and in San Cosme. There is always

a large attendance, but it is chiefly of the lower classes of the popula-

"We have seen a bull-fight, but it was not a real one. It was given at a marionette theatre, and was said to be an excellent representation of the actual performance. The figures were about four inches high, and operated by cords invisible to the audience. It was interesting and funny, and we had a good laugh while looking at it. During Lent this marionette



TIVOLI GARDEN, SAN COSME.

theatre has exhibitions called *Los Processiones*, in which long processions of various church dignitaries and characters are drawn slowly along a stage or walk extending the whole length of the room. At the time we saw the miniature bull-fight the walk had been removed, and the stage was at the end of the hall. The audience was of the lower class of natives, and we kept a good watch over our pockets.

"The real bull-fight was something we did not want to see, and we refused several invitations to witness it. It is a brutal, degrading sport,

from our point of consideration; but probably the Spaniards and Mexicans would not agree with us.

"Mr. Brocklehurst, the author of 'Mexico To-day,' says the bull-fight here is almost as attractive as in Spain, and the sporting men of Mexico



TEASING THE BULL.

have their preferences in regard to the ganderias, the farms on which bulls are raised, just as the same class in England have their favorite stables for horses. The bulls are of proper age for fighting at from three to five years; they are reared as carefully as race-horses in other countries, and brought to the plaza during the night

before the day on which they are to do battle.

"On their arrival they are shut in a dark pen, and when wanted for the fight they are driven from this pen, one by one, to the toril, which

opens into the arena. The ring is a great amphitheatre, without a roof, and the seats al sol (on the sunny side) are only half the price of those al sombre (on the shady side). To the discredit of the people be it said, the seats are generally well filled to witness this cruel sport, and the great mass of the people seem to be more



PICADORES.

interested in it than in the choice of a President or the opening of a new railway.

"The performance begins with a procession of the fighters, and then the master of ceremonies asks the judge for the key of the toril, which is



THE MATADOR'S TRIUMPH.

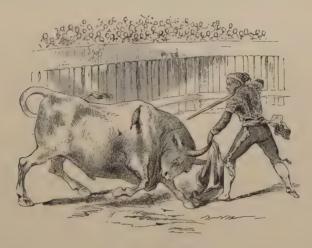
thrown to him. He then goes to the toril and lets in the bull, the band and all other persons not concerned in the fight having judiciously retired from the ring.

"The *picadores*, or mounted men, are on miserable horses, whose eyes are bandaged so that they cannot see the bull; as the animal enters he looks

around in astonishment at the horses and their riders, at the capeadores, with their scarlet cloaks to attract the bull's attention, and at the ban-

derilleros, whose duty it is to stick darts in the animal to enrage him. Sometimes the darts have fire-crackers attached in addition to the long ribbons with which they are always ornamented.

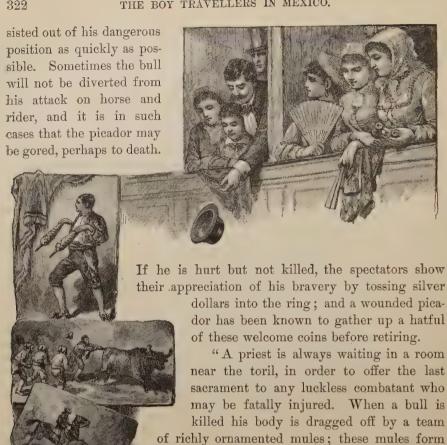
"The most cruel part of the performance, and one which generally sickens the foreign spectator, is when the poor, broken-down, and blind-folded horses are gored by the maddened animal which has been brought into the ring only to be killed. The most interesting part of it is when, after killing several horses, and being worried for half an hour by his tormentors, the bull is turned over to the *matador*, who, after several feints and skilfully avoiding the charges of the animal, plants his sword up to



THE FINAL BLOW.

the hilt between the bull's shoulders. The matador is a hero who is worshipped by the populace as much as is the champion base-ball player in the United States, or the jockey in England who wins the Derby. Once in a while a matador is killed by his four-footed adversary; an occurrence of this kind adds interest to the sport, though it may plunge the whole country into grief.

"Next to the matador, the men who run the greatest risk are the picadores, the fellows who fight on horseback. They are protected by leather armor, which impedes their movements, and when a horse is thrown down by the bull they often fall with him, and are unable to extricate themselves. When this occurs, the capeadores, who are also called *chulos*, endeavor to draw away the bull's attention by waving their cloaks in front of him; the ruse generally succeeds, and the unfortunate picador is as-



part of the procession that opens the performance, but they never seem to manifest any special pride in their work.

> "We are told that the spectators are often wild with excitement over the incidents of a bull-fight; they smash the furniture and railings, and have been known to wreck a considerable portion of the wood-work of the ring in their fury. Sombreros by the dozen, of all kinds and values, are thrown into the arena, and a gentleman tells us he has seen hundreds of

SCENES AT A BULL-FIGHT.

spectators leaving the place bareheaded at the end of an exciting day. From four to six bulls are killed at a performance—four being the usual number—and ten or twelve horses.

"That will do for the national sport of Mexico," concluded the youth; "it is only given because a description of the country would be incomplete without it. Doctor Bronson says that bull-fighting was originally



A BULL-RING OF THE HIGHEST CLASS.

a compromise with the Roman custom of gladiatorial combats, and furnished a substitute that met the desire of the populace to witness bloodshed. It was brought to Mexico by the Spaniards, partly as a reminiscence of their home country, and partly to take the place of the human sacrifices of the Aztecs. It has become a part of the life of the people, and the government that endeavors to suppress it would run the risk of being overturned."

From theatres and bull-fights the conversation naturally turned to the other amusements of the Mexicans. That the people are fond of gambling the youths had already learned, also that one of their sports was cock-fighting. Game-cocks are carefully trained for the work they are

expected to perform, and fights between them are of frequent occurrence. A traveller in Mexico tells how he once visited a school where each of the pupils had a game-cock, which he carried constantly with him, and during school hours the birds were supposed to be tied up so that they could not get at each other. The noonday recess was generally devoted to a battle between two of the feathered champions, and sometimes the teacher, who possessed several game-birds, joined in the sport with his pupils.

Cockpits are more numerous than bull-rings, for the reason that their construction is inexpensive. Only a few posts and a thatched roof are necessary. The birds are placed in the centre of a ring, and the excited



A SCHOOL ON THE OLD MODEL.

spectators crowd as closely as possible to the ropes in order to witness the sport. Pretty nearly all the money in their possession changes hands during or at the end of the performance, and sometimes the peons are so warmed up to the business that they wager their hats, coats, and nearly all their garments, together with everything else they possess.

The religious observances of the country are closely mixed up with amusements, as the festivities established by the Church are almost invariably combined with entertainments in greater or less variety. In this respect they have their counterpart in the Christmas festivities of most Protestant countries.

"They can't have Christmas here as we do," Frank remarked to Fred, while they were discussing the subject.

"Why so?" Fred asked.

"Because," was the reply, "they have no chimneys, and consequently

no way for Santa Claus to get into the house after the timehonored fashion."

"That's so," answered Fred; "but you may be sure they have their fun, and quite as much as we do. We'll look into that subject, and find out about it."

Fred investigated, and here is the result of his inquiries:

"The Mexicans have a longer Christmas than we do, as it begins on the 17th of December, and lasts until New Year's Day. During their Christmas they have an amusement called the posada, or inn; it is based upon occurrences of the time when Cæsar Augustus ordered the whole world to be taxed, and Joseph and Mary came to Judea from Galilee to be enrolled. Bethlehem was so filled with strangers that they wandered from inn to inn for nine days without finding accommodations, and then sought shelter in the stable in which Christ was born.

"In commemoration of the nine days of wandering, the Mexican posadas last nine



FIGURE OF JOSEPH (PROCESSION OF THE POSADA).

days. In many houses processions are formed, and the people of a family join in it, carrying tapers and singing litanies; figures of Joseph and

Mary are carried in front of each procession, and every door that is passed on the round is knocked upon in the effort to obtain shelter. The sound of the litanies is to be heard all over the city; court-yards and windows are hung with numerous lanterns, and all the public places are richly ornamented, and abound with pleasure-seekers.

"The principal sport of the posada is breaking the *pinate*, an earthen jar filled with dulces. The jar is richly decorated on the outside, and ornamented with ribbons of paper. The pinates are made in the shape of all known and many unknown birds and beasts, and also in the shape of dolls, some of them being of great size. Peddlers go about the streets with these things suspended from a pole, and the number sold at Christmas-time is very large.

"When the ceremonial procession is over the party goes to the patio, or to a large room of the house, and there the fun begins. A pinate is suspended from the ceiling, or from a cord stretched across the patio, and then one of the party, blindfolded and armed with a stick, sets about breaking the pinate; sometimes half a dozen are blindfolded at once, and then the fun is lively. When the pinate is broken the dulces fall to the floor, and everybody scrambles for them. Altogether, the game reminds us of blind-man's-buff and some of our other home sports.

"A good many people omit the religious part of the posada and come at once to the jug-breaking. In wealthy families posadas often cost many hundreds or even thousands of dollars; the ladies receive handsome and valuable presents, and the broken pinates have been known to yield showers of rings and gold coins, instead of the regulation sweetmeats. The affair concludes with a grand dance, and the participants do not reach home until a very late, or early, hour.

"All through the Christmas and New-year festivities there are grand balls, dinners, theatre parties, and the like; everybody indulges in festivity according to his means, and not infrequently beyond them; and when the affair is over, and the realities of life come again, the tradesmen who seek to collect their bills make the time doubly serious. In some parts of the country the pastorela, or pastoral, takes the place of the posada; the amusements are pretty much the same, the principal difference being that another incident of the nativity is taken as the groundwork of the ceremonial.

"Another popular festival is on the last day of Holy Week, which is devoted to the death of Judas. Effigies of Judas abound everywhere; they are hung on trees and from windows, on lamp-posts, balconies—in fact, everywhere they can be made to hang. You see them on the front



of every locomotive on that day, and on many another vehicle; in fact, it would be easier to say where Judas is not than where he is. The

THE RAILWAY JUDAS.

figures are of all dimensions, but usually of life size. They are filled with fireworks of various sorts, so that they explode when a match is touched to them. If from any cause they do not explode, they are torn in pieces when they fall to the ground. In thus destroying them the people indicate their detestation of the betrayer of his Master. Not infrequently the figures that are hung from private houses have thirty silver dollars pasted upon them, as a reminder of the thirty pieces of silver which were the traitor's price. Of course there is a lively scramble for these coins when the Judas falls to the ground."

CHAPTER XXI.

EXCURSION TO TULA.—AN ANCIENT CITY OF THE TOLTECS.—CHURCH OF THE TIME OF CORTEZ.—MANNERS AND CUSTOMS OF THE TOLTECS.—TOLTEC KINGS, COURTS, AND KNIGHTHOOD.—RUINS OF THE TEMPLE AND PALACE.—JOURNEY TO MORELOS.—INTEROCEANIC RAILWAY.—MORELOS AND HIS SERVICES TO MEXICO.—CUAUTLA AND ITS ATTRACTIONS.—TERRIBLE RAILWAY ACCIDENT.—DOWN THE SOUTHERN SLOPE.—IN TIERRA CALIENTE.—VISITING A SUGAR ESTATE.—TO YAUTEPEC AND CUERNAVACA.—RIDE OVER THE MOUNTAINS.—SITUATION OF CUERNAVACA.—OLD CHURCH AND PALACE OF CORTEZ.—A FORTUNATE FRENCHMAN.—ROMANTIC INCIDENT IN THE CAPTURE OF CUERNAVACA.

ONE of the volumes in which our young friends were interested during their stay in Mexico was "The Ancient Cities of the New World," by M. Charnay. The perusal of this book led them to wish to visit Tula, which is famous for having been a city of the Toltecs, and a flourishing place at the time of the Conquest.

Leaving the city of Mexico at half-past seven o'clock one morning by the Central Railway, they reached Tula at 9.40 A.M.; the distance is about fifty miles, and the route is the same as already described, through the Nochistongo cut. The returning train at 4.40 p.m. brought them back to the city at seven o'clock, and the trio unanimously voted that they had passed a most agreeable and instructive day. The heads of the youths were filled with archæology, and they felt themselves almost competent to write a history of the Toltecs and their migrations, in spite of the obscurity of many of the traditions about this remarkable people.

Instead of a history, they acted upon Doctor Bronson's suggestion, and contented themselves with an account of what they had seen, with a few supplementary notes by way of explanation. From this account we will make a few selections.

"Tula now has a population of less than 2000," said Frank in his note-book; "but according to the histories, it was a rival of Tenochtitlan, the ancient name of the city of Mexico, at the time of the Conquest. The inhabitants were firm supporters of Cortez, and among the first people to accept the new religion and become his allies. Its ancient name was Tollan, which is said to mean 'the place of reeds,' and also 'the place of many people.' Cortez built a church there very soon after he conquered

the place. There is a church now standing which was begun in 1553 and completed eight years later.

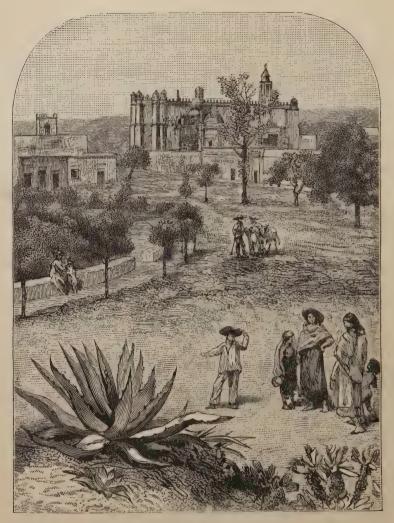
"It is one of the best built churches in Mexico; at any rate, one of the best that we have seen. Doctor Bronson thought it must have been intended as a fortress as well as a church, as the walls in some places are seven feet thick, and built in the most substantial manner. And it wasn't a small building either, as it is 192 feet long by 41 wide. The body of the



WARRIOR'S PROFILE, FOUND AT TULA.

church is more than 80 feet high, and it has a tower whose top is 125 feet from the ground. The architects that came with Cortez evidently understood how to erect substantial buildings.

"Exactly how many inhabitants there were in Tula when Cortez came nobody seems to know; but it is certain, from the extent of the ruins, that the city covered a wide area. There is a small and not particularly clean river that winds through a plain around the base of Mount Coatepetl, and



CHURCH AND PART OF PLAZA AT TULA.

the city stretched over this plain and was dominated by the mountain. Great quantities of sculpture have been found here in ploughing the fields or clearing the bed of the river, and explorers and antiquarians have done a great deal of work with profitable results. Some of the 'finds' have been taken to the museum in Mexico, some have gone out of the country, and a good many large pillars and pieces of statues remain in Tula to interest and instruct the visitor.

"According to the historians, the Toltecs founded Tula, or Tollan, in



TOLTEC KING AND HIS THRONE.

the year 648. We have told elsewhere how the discovery of pulque brought about the ruin of the nation, but whether this is really so or not the historians cannot say positively. At any rate, the ruins of Tula are of great antiquity, and as we walked and stood among them we tried to make a mental picture of what was to be seen here a thousand years ago.



RUINS OF A TOLTEC PALACE.

"We imagined that we saw a long line of soldiers, armed with spears, light javelins, bows and arrows, and also with clubs studded with copper or silver nails. They were protected by cotton tunics thickly quilted, that must have been very warm when the wearers were marching, but evidently made an excellent armor. They had leggings of the same material, and they had wadded capes over their shoulders, but kept their arms bare for greater facility in handling their weapons. We pictured their king wrapped in a thick mantle knotted across his breast, with his hands bare, and his feet protected by sandals. These sandals were held in place by a thong passing between the first and second toes—exactly after the style of the foot-gear worn by the Japanese at the present time. His head

was covered with a conical cap resembling that of the Persians, and his ears were ornamented with heavy rings that glistened through his long hair.

"At one side of the field where the soldiers are standing in battle-array we see some buildings which they tell us are storehouses where grain is laid away in times of abundance as a provision against a period of famine. This was a custom of the Toltees, and on several occasions saved them from great suffering.

"One building which we cannot clearly make out is a tennis-court, so M. Charnay says, and if we have any doubt about it now we can be convinced, as one of the tennis-rings is still in place. Then there is a temple on the top of a hill, and the procession that is going towards the temple is in honor of a warrior who is receiving the honor of knighthood.

"You will be interested in learning that they had a regular system of knighthood here centuries before Columbus discovered America. When



THE PYRAMID OF THE SUN AT TULA.

a candidate was to be presented the knights accompanied him to the temple in a solemn procession. At the temple a priest pierced the cartilage of his nose with an eagle's claw, and then twigs were inserted in the wound to keep the flesh from uniting as the sore healed. He was clad in a coarse tunic, and then they painted him black all over, gave him one tortilla and a little water once a day to save him from starvation, and compelled him to lie on a mat on the cold ground. They allowed him to sleep only a few minutes at a time, and waked him by a prod with a thorn. Several times a day they sat down and feasted in front of him, called him every mean name their language contained, and heaped all sorts of insults upon him. They kept this up for sixty days; if he lost his temper at any time and 'talked back' at their insults, or asked for any of their food, the ceremony stopped and he wasn't made a knight.

"If he held out bravely and patiently to the end of the sixty days, he was then taken to the Temple again, and the whole order of the knights received him with high honors. His mean garments were removed from him by the oldest knight in the assemblage, and he was decorated with the insignia of the order and dressed in fine clothes. The use of the hole in his nose was now apparent, as the jewel that indicated his rank was hung there. The Apache and other south-western Indians occupy the country dwelt in by the Toltecs before their migration to Mexico. These Indians wear ornaments in their noses, and are supposed to have derived the custom from the ancient inhabitants.

"So much for the past. Let us see what there is here now. Here are the ruins of the Temple of the Sun, where the people worshipped that great luminary; they made offerings of fruits and flowers, and sometimes of birds, and, unlike the Aztecs, they did not indulge in human sacrifices. The temple is now only a heap of stones partly overgrown with trees, and it is said that a great deal of material was taken from it for building the houses of the Tula of to-day.

"We went from the temple to the ruins of the palace. These ruins were unearthed by M. Charnay, and cover a considerable area of ground. The guide who accompanied us was the same that aided the author of 'Ancient Cities of the New World,' and he pointed out the different rooms in the palace and their probable uses. One room, he said, was supposed to have been devoted to a sort of 'Happy Family' of wild and domestic animals, as it was the fashion of those times for every palace to have a menagerie attached to it. Then they had coops and cages for turkeys, ducks, and other fowls destined for the table, yards for goats and other domestic quadrupeds, tanks for fish, and chambers for reptiles and birds of prey.

Servants' quarters were arranged very much as in modern palaces; and altogether the Toltec kings had a good deal of comfort about their residences.

"In the plaza we saw some broken columns, which appear to have been wrought with a great deal of skill and carefully mortised together. There was also the lower portion of a caryatid. Fred made a sketch of it with the guide standing at one side, so that you can see the proportions of the figure. Only the legs and feet remain, and they are more than seven feet high. Taking this height for a calculation, the head of the complete figure before it was broken must have been nearly twenty feet from the ground.

"The Toltecs built their houses of uncut stone laid in mud, and covered with hard cement; this cement seems to have been of an excellent composition, as it is well preserved in spite of the centuries that have



PARTS OF A COLUMN, TULA.

elapsed since the city was built. The floors are levelled with the same cement, and some of them are smooth enough for skating-rinks. The palace that we visited contains thirty or forty rooms, and there is a smaller palace in another part of the town which we did not see. One of the Toltec stone basins is used as a baptismal font for the church, and the ruins supplied much of the material of which the walls are composed.

"We dined fairly well at the Hotel de Diligencias, having taken the precaution to order the dinner as soon as we arrived. We allowed ourselves scant time for the meal, as we wished to utilize our stay as much as possible in seeing the sights of Tula. If we ever turn excavators of ruins, we will come to Tula and see what can be found. Our interest is somewhat stimulated by the story that an Indian boy once found a jar here containing 500 gold coins; he was ignorant of their value, and sold the entire lot for a few coppers. If you hear of our doing anything of this sort, please let us know."

On their return to the city Doctor Bronson found at the hotel a letter which contained an invitation to visit a sugar plantation in the State of Morelos; the invitation included the youths, and was accepted at once.



TOLTEC CARYATID, TULA.

Immediate acceptance was necessary, as the proprietor of the estate was to leave the city on the following morning, and wished the visitors to accompany him, and on their part they desired the pleasure and advantage of his company on the road.

The party took the morning train on the Interoceanic Railway, the line by which they went to Amecameca on their excursion to Popocate-

petl. Their destination was Cuautla (pronounced Kwat-la) or Cuautla-Morelos, as it is officially designated.

"It was named in honor of the patriot Morelos," said Señor Domingo, the gentleman whose sugar estate our friends were going to visit.

"I have seen his name in the list of Mexicans who have made their names famous," replied Fred, "and must refresh my memory concerning him."

"I will save you the trouble of consulting the histories," the gentleman answered, "by giving you a brief sketch of his life."

The youths bowed their acknowledgments of his courtesy as Señor Domingo continued:

"You doubtless know about the insurrection led by the priest Hidalgo, in 1810, which was the beginning of the War for Independence. Well,



NATIVE HUT ON A SUGAR ESTATE.

Morelos was one of the curates under Hidalgo, and when the insurrection began he joined in it, and raised a force of patriots to oppose the Spaniards and drive them from the country. He began with five negro slaves as the nucleus of his army, and soon had a following of several thousands.

He was successful at first, and his defence of Cuautla was one of the most heroic affairs known in Mexican history.

"Morelos had taken his position in the town, and was attacked by the Spanish general Calleja, in February, 1812. He repulsed the attack, and then the Spaniards laid siege to the place. For more than two months



HENEQUIN PLANT.

the siege was kept up; provisions grew very scarce and the besieged were near the point of starvation. Rats sold for one dollar each, and a cat was worth five or six dollars. Lizards became valuable, and a fair-sized one was worth two dollars, and could not be readily obtained at that price."

"Was the patriot army forced to surrender?" Frank asked.

"No," was the reply, "it held out for sixty-two days, and then Morelos managed on a dark and rainy night to evacuate the place and retreat. He fought several other battles, but was finally captured. He was tried for treason,

and condemned to death, and it is notable that his conviction was one of the last acts of the Inquisition in Mexico. Morelos was shot in December, 1815; his memory is preserved in the name of the State we are about to visit, and also in that of his native city, Valladolid, which is now called Morelia."

"To be shot for treason seems to be the fate of the majority of Mexican leaders," one of the youths remarked.

"Yes," was the reply. "An intimate friend of Morelos, and one of his ablest officers, was the priest Matamoras. He was captured and shot by Iturbide, in 1814, and in revenge for his execution Morelos is said to have butchered 200 Spanish prisoners. And Iturbide, as you know, was disposed of in the same way, when he set foot on Mexican soil after his banishment. It may seem strange to you to see the portraits of Iturbide, Morelos, and Matamoras side by side in the public hall at Cuautla, and to know we revere them all as heroes; but it shows you the ups and downs of Mexican history better than anything else I know of."

The conversation just related occurred as the train was wending its way from Mexico to Amecameca. Beyond that town there were numerous curves in the railway line, and the youths were interested in studying the rapidly changing panorama as the train wound among the mountains in its descent from Ozumba to Cuautla. Before the ride was ended they declared that they had nowhere seen a more crooked railway, and expressed unfeigned admiration for the engineer that built it.

But their admiration was checked when Señor Domingo pointed out the scene of one of the most terribly fatal accidents known in the history of railway management.

"This is the place," said he, as they reached the deep barranca of Malpais. "The railway was opened on the 18th of June, 1881, and there was an excursion from the city, with a grand banquet at Cuautla. President Diaz and nearly all the notable men of Mexico were on the excursion and banqueting party; in fact there was hardly any government left in



FIGHT BETWEEN REGULARS AND INSURGENTS.

the capital on that day. The banquet was given in an old convent, which had been converted into a railway-station, and a very good station it makes.

"There was a regiment of soldiers at Cuautla at the time, and just six days after the excursion and the opening of the line it was ordered to the

city. The soldiers were placed on platform cars, and several other cars loaded with barrels of aguardiente were attached to the train.

"It was dusk when the train started, and the night came on very dark and rainy. The soldiers broke open some of the barrels of the fiery liquid, and drank heavily to keep out the effects of the rain. The foundations of the bridge at this barranca had been badly built, and were



RAILWAY CROSSING A BARRANCA.

made unsafe by a flood; when the train came along, the bridge gave way and the cars were thrown into the abyss. The barrels of aguardiente took fire, the cartridges in the belts of the soldiers exploded, the men who were not killed outright or stunned by the fall were crazy with drink and excitement, and shot and stabbed each other; many were swept away by the torrent, and altogether the accident was the most horrible ever known upon a railway, so far as I have read or heard. More than three hundred lives were lost, and many persons think the real number was not much below five hundred."

Frank and Fred shuddered as they looked from the windows of the



A PRODUCT OF CUAUTLA.

car into the deep barranca, where the stream was rushing along in its wild fury. The fallen train, inky darkness, the tropical storm, men crazed with drunkenness, burning aguardiente, exploding cartridges,



TRAVELLERS RESTING.

knives, bayonets, and loaded rifles combined to make a picture terrible to contemplate.

The change from the Valley of Mexico to the warm country south of the encircling mountains is very perceptible in the distance between Ozumba and Cuautla, and more so where the line continues to Yautepec, fifteen miles farther on. Cuautla is eighty-five miles from Mexico City, and before the railway was opened it was very difficult of access.

The railway, as before stated, is entirely Mexican in character; it is a narrow-gauge line, and owes its existence to the owners of the sugar estates in the region of which Cuautla and Yautepec are the commercial centres. Through the political influence of these men a Government concession and subsidy were obtained, with

extra subventions for speedy constructions. To the insecure character of the work, owing to the speed with which the line was built, may be attributed the accident at the Malpais barranca.

Cuautla has about 12,000 inhabitants, and is 3500 feet above the level of the sea; the rapidity of the descent of the railway will be realized when it is remembered that Amecameca is nearly 5000 feet higher up in the air, and less than fifty miles away. That the region is tropical a glance from the car windows as the station is approached will readily show.

Cuautla contains a very good and venerable church, and a well-built town-hall; the alameda is pretty, and when these have been seen the stranger has practically finished with the place. Señor Domingo did not allow our friends an opportunity to inspect the town, as his carriage was waiting at the station and they were off in a few minutes. They did not see the sights of Cuautla until their return.

They had breakfasted lightly before starting in the morning, and substantially at Ozumba; it was halfpast three in the afternoon when they ended their railway ride, and the drive to the sugar estate occupied fully two hours. The drive was along roads lined with tropical trees and plants, and among plantations of bananas, sugar-cane, oranges, and other products of the warm region. The air was dense and hot, and by no means an agreeable change from the pure atmosphere of the Valley of Mexico.

Sugar is the chief product of the State of Morelos, the annual yield being over 60,000,000 pounds, or 30,000 tons. Next to sugar comes



OVER THE HILLS.

corn, the value of the corn product being nearly two-thirds as much as that of the sugar. Coffee, rice, wheat, and fruits are the remaining yields of the soil; and there are several silver-mines in Morelos, but they are not of great repute. The story is that they swallow up a great deal more than

they produce, and are only worked when a capitalist happens along who has a few hundreds of thousands he is willing to part with.

A late and bountiful dinner was served at the plantation, and after a pleasant evening with the family of their host the strangers retired to rest. They were out early the next morning, ready for an investigation of the sugar-making process as it is conducted in Mexico.

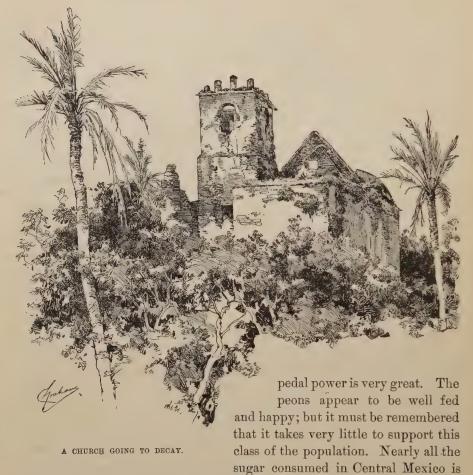
Here is what Fred wrote on the subject:

"We have seen sugar-making in several parts of the world, so that there is nothing particularly new to us here. They have the most improved machinery for crushing, boiling, and refining, and there is a portable railway for transporting the

sugar-cane to the mills. This railway is shifted from one part of the estate to another as it is wanted, and the saving of horse or other quadru-



A SCORPION OF CUERNAVACA.



grown in the State of Morelos and the tropical region which immediately borders it. It is said that the business is less profitable now than in former times, owing to the low price of sugar.

"The process of making sugar has been described so often that it would be superfluous to give it a place here. Some of the estates date from the time of Cortez, and we were shown a building that was erected about 1540, if the tradition concerning it is correct. Of course the processes for obtaining sugar from the cane have greatly improved since that time, and the sugar-makers of three hundred years ago would be very much astonished if they could wake up and see what is going on here now."

Doctor Bronson and his nephews spent two or three days around

Cuautla, and then continued on to Yautepec, where they took horses for a five hours' ride to Cuernavaca. They took the advice of Señor Domingo, and spent the night at Yautepec, so as to make the horseback journey in the early hours of the day, and thus escape the heat of noon.

"We had a rough ride," said Frank, "but were amply repaid for it, not only by the scenery along the way but by the quaint and picturesque position of Cuernavaca. It has a commanding site on a promontory projecting into the Valley of Cuernavaca, several hundred feet above it. The valley is exceedingly fertile, and so is the ground on which the town, with its twelve or fourteen thousand inhabitants, is located. There was a town here when Cortez came to Mexico, and it was captured and converted to Christianity before the siege of Tenochtitlan was begun.

"There is a wonderful supply of tropical fruits, and also, we regret to say, of tropical insects, the scorpion having a prominent place among them.



MEXICAN HOUSE WITH TILED ROOF.

The widest street is the Calle Nacional, and the most interesting buildings are the church and the palace of Cortez. The conqueror had a grant of land from the King, which included the Valley of Cuernavaca; he established his private residence here, and had a large estate, where he introduced the cultivation of the sugar-cane and other useful growths of the hot lands. His palace is now used as the public building of the State of Morelos, which has its capital here; it has been changed a good deal since

his time, and we had some doubt as to the veracity of the guide, who pointed out the different rooms and told the uses which the great warrior made of them.

"The church is well worth seeing, and according to the historians it was founded in 1529, along with a convent of the order of San Francisco. There is another church, which was built by a Frenchman who came to Mexico a poor boy and was so successful in mining enterprises that he accumulated a fortune of \$40,000,000. He spent a million dollars in building the church, and another million in making a garden which is one of the finest in Mexico, though it is far from being what it was in its best days. We went through it and were fairly enraptured with what it contains. The whole flora of the tropics seem to have been gathered in this garden, and not only that of the tropics, but also of a large part of the temperate zone.

"This fortunate Frenchman was named Joseph de la Borde, which is changed in Spanish into José de la Borda. Lest you might think of coming here to make his acquaintance, I will add that he was born in the year 1700, and therefore isn't around very much just now.

"Cuernavaca means 'cow's horn,' but we looked in vain for something to remind us of the weapon of the favorite animal of the farm-yard. It was explained to us that the word is a corruption of Quauhnahuac, which means 'where the eagle stops.' This was a better definition, as the site of Cuernavaca is one which an intelligent eagle might select for building his nest, provided there were no human beings around to molest him. The ill-fated Maximilian followed the supposed example of the eagle, as he was fond of coming here; it was his favorite dwelling-place whenever he could snatch a few days from the cares of state. Most of the houses are roofed with red tiles, which make a fine contrast with the foliage of the tropical and semi-tropical trees.

"We visited the springs of Guadalupe which supply the town with water, and found some charming scenery among the neighboring hills. Cuernavaca lies between two barrancas, with very steep sides, and thereby, or therein, hangs a bit of history. The barrancas offer an excellent protection against assault, and when the army of Cortez came here there seemed to be no point of access. You must remember that Cortez had no Krupp or Armstrong cannon with which he could lie off at his ease to batter the town to pieces and care nothing for the intervening chasms.

"The Spaniards were at bay for some time, till at last some of the soldiers found a place where two trees had fallen across the barranca, and made a perilous but possible bridge. Over this passage-way they crept,

one by one, some of them growing dizzy and falling off, to be dashed to death on the rocks below. Silently they effected the transit, formed their ranks on the other side, and then, with the blare of trumpets and the fire of musketry, they dashed forward and captured the town. How it must have astonished the people when the position they had considered impregnable was thus captured by the white men from beyond the sea!"



CLIMBING THE HEIGHTS.

CHAPTER XXII.

OVERLAND TO ACAPULCO.—SCENES OF LONG AGO.—PRESENT MODE OF TRAVEL.—
TEN DAYS ON HORSEBACK.—WAY-SIDE ACCOMMODATIONS.—ACAPULCO'S HARBOR.—RETURN TO THE CAPITAL.—EXCURSION TO GUADALAJARA.—DOCTOR
BRONSON LEFT BEHIND.—OLD BRIDGES AND THEIR HISTORY.—BATTLE BETWEEN HIDALGO AND THE SPANIARDS.—STORIES ABOUT BRIGANDS.—SLAUGHTER BY PRIVATE ENTERPRISE.—HOW SEÑOR PEREZ SECURED PEACE.—ATTRACTIONS OF GUADALAJARA.—THE CATHEDRAL AND OTHER CHURCHES.—THE
GREAT HOSPICIO.—WHAT THE EARTHQUAKE DID.—PUBLIC SCHOOLS.—A DAY
ON A CATTLE HACIENDA.—A RODEO.—RETURN TO THE CAPITAL.

AT Cuernavaca our friends learned that they were on the road from Vera Cruz and Mexico to Acapulco, and the youths greatly wished to continue to the Pacific Ocean. It is the old route of commerce between Spain and Asia, and was travelled for hundreds of years by long trains of pack-mules laden with the products of the Orient on their way



A WAY-SIDE SHRINE.

to Europe, and with those of Mexico and Europe destined for Asia. It seems incredible that such a route should have been so long maintained across the continent, with no track for wheeled vehicles, over mountains and through deep gorges, with the dangers of robbers, pestilence, and the hundred accidents that are liable to occur in such a country and such a time; but so it was. Over this route were carried the cargoes of many richly freighted galleons; along these dangerous path-ways thousands

of soldiers marched to glory or the grave, and hundreds if not thousands of civilians went in search of new lands from which they could gather the wealth they coveted.

It is eighty leagues, or 240 miles, from Cuernavaca to Acapulco, the port which once enjoyed a profitable commerce but is to-day of comparatively little moment. Spasmodic efforts have been made at different

times for the construction of a wagon-road, but they have never been carried far. There is a wagon-road between Cuernavaca and Mexico City, a distance of about forty-five miles, and over this a diligence runs three times a week each way, and wagons laden with merchandise pass in fair number. But the business of the route is less than it was two hundred years ago; the Mexicans hope for a revival when the railway is completed from Vera Cruz to Acapulco, and a line of steamers between Acapulco and China is under consideration.

Doctor Bronson's plans did not include the overland journey to Acapulco, and by way of consolation the youths determined to write a description of the route from what they could learn from others. By consulting those who had made the journey, and by references to some of the volumes in their possession, they composed the following:

"There is no regular system of hiring horses and baggage-mules for the journey, and the traveller must make his bargain with an arriero. A horse to carry himself, and a mule for the baggage, will cost about forty dollars, twenty for each animal; if there are several persons in a party the



ON THE ROAD TO ACAPULCO.

price can be reduced somewhat. It should be carefully stipulated that the arriero pay his own expenses and those of his animals, or the traveller will find himself mulcted for a considerable sum as he goes along. The arriero will want to be paid in advance, a demand that should be strenuously refused; the affair can be compromised by paying half down, and the other half at the end of the journey, which is ordinarily made in ten days.



A COUNTRY HOTEL.

"As we start from Cuernavaca we find ourselves on a carriage-road, and wonder how it happens that we were told we must go in the saddle. The reason is soon apparent, as the carriage-road comes to an end after a little while. It reminds us of that famous turnpike somewhere in the Western States that began with a macadamized road fifty feet wide, and steadily dwindled till it became only a squirrel-track and ran up a tree, or a similar road that terminated in a gopher-hole. One gentleman says the route from Cuernavaca to Acapulco is spoken of as a bueno camino de pajaros (a good road for birds), and he is about right.

"The country is rough and the scenery wild and interesting, except that one wearies of mountains and valleys after seeing a few hundreds of each. Portions of the way as we leave Cuernavaca behind us are through the sugar region. We pass large fields of cane and meet trains of mules laden with sugar. At irregular intervals we find villages or isolated houses, and in the construction of these buildings we observe that the cane is very prominent. Houses in this region are mostly built of cane, and their roofs are heavily thatched to keep out the heat of the tropical suns and the heavy downpour of tropical rains.

"This is the regular routine: We make an early start in the daybreak, take a long rest in the middle of the day, then ride in the late afternoon, and put up in a meson, or inn, or in the hut of some villager. The accommodations are of the most primitive character, but they are the best the country can afford, and we accept them without murmuring. For food, we have eggs, chickens, fried bananas, tortillas, and always the national dish, frijoles. We can get milk in the morning but not at night, as they milk their cows only once a day.

"Some of the rivers are fordable, others have been bridged, and others swollen by rains must be crossed in boats. Some of the boats are large enough to ferry our animals along with ourselves, while at the crossing of



GALLEON OF THE SIXTEENTH CENTURY.

others we are transported in dugouts, and the horses and mules are compelled to swim. Of course in such a case everything must be removed from the backs of the animals, and this causes a considerable delay. We think ourselves fortunate in getting through in ten days when all the hinderances of progress are considered. In some places there is absolutely no track, as we follow the beds of streams, where at each rise all traces of

previous travellers are washed away. In the time of floods these riverbeds are abandoned, and the banks of the streams are followed.

"Years and years before New England and New York were settled the Spaniards were traversing this route with long trains of beasts of burden, laden with the treasures of the East. If you want to know what they carried, read Bret Harte's poem of 'The Lost Galleon:'

"'In sixteen hundred and forty-one
The regular yearly galleon,
Laden with odorous gums and spice,
India cotton and India rice,
And the richest silks of far Cathay,
Was due at Acapulco Bay.

* * * * *

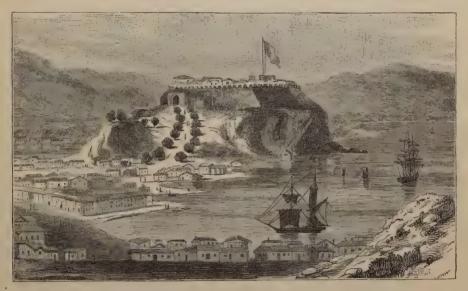
""The trains were waiting outside the walls,
The wives of the sailors thronged the town,
The traders sat by their empty stalls,
And the Viceroy himself came down:
The bells in the town were all atrip,
Te Deums were on each father's lip,
The limes were ripening in the sun
For the sick of the coming galleon.

"'All in vain. Weeks passed away,
And yet no galleon saw the bay;
India goods advanced in price;
The Governor missed his favorite spice;
The señoritas mourned for sandal
And the famous cottons of Coromandel;
And some for an absent lover lost,
And one for a husband tempest-tossed;

"And all along the coast that year Votive candles were scarce and dear."

"A thousand mules and donkeys were required for the transport of the freight of one of these galleons; a cargo was often valued at \$2,000,000, and the return one to the East was of equal worth. The return cargo consisted mostly of silver, cochineal, cocoa, and other Mexican products, together with European goods from Spain. The cargoes from Asia were taken to the city of Mexico, and whatever did not find a market there was sent to Spain by way of Vera Cruz. The old chroniclers say that the Mexicans had the first selection of the goods, and often aroused the jeal-ousy of their friends in Spain in consequence.

"Well, here we are at Acapulco, and for the last time dismount from our steeds. We look upon the blue waters of the little harbor, but can see no galleon at anchor, only a few sailing-ships and one of the steamers of the Pacific Mail Company, which has just come into port and lies fuming uneasily, as though impatient to continue her voyage. Were it not for the semi-monthly visits of the Pacific mail steamers, Acapulco would have no regular connection with the rest of the world. The place has a population of three or four thousand only, and it has a fort on an island which lies opposite the town, cutting off the long swell of the Pacific Ocean, and forming one of the best harbors on the western coast of Mexico."



TOWN AND CASTLE OF ACAPULCO.

Frank and Fred returned with Doctor Bronson to the city of Mexico by diligence. The road is rough, and they were severely jolted in their eight hours' ride; they managed to shorten the rough part to six hours by leaving the diligence at Tlalpan and coming thence to the city by the tram-way.

Hardly had the youths shaken the dust of the road from their garments than they looked around for "new worlds to conquer." Their attention was drawn to Guadalajara (pronounced gwa-da-la-ha-ra), a city that is not often visited by tourists, for the reason that it lies off the main route of travel. It is the capital of the State of Jalisco, has a population of some eighty or ninety thousand, contains a fine cathedral, and

other public buildings, and altogether is worth a good deal more than a passing thought.

"We can go there by train," said Frank, "as the branch line from the Mexican Central Railway at Irapuato has been recently opened."

"How long will it take us to get there?" queried Fred.



A SCENE ON THE DILIGENCE ROAD.

"About twenty two hours," was the reply. "We can leave here at 8.10 p.m., and if not delayed, the north-bound train will get us to Irapuato at 6.57 the next morning. The train for Guadalajara leaves Irapuato at 8.40 a.m., and we are due in that city at 6 p.m."

"But perhaps Uncle will not wish to go there; what will we do in that case?"

"Why, go alone, to be sure, if he can spare us the time."

The plan was duly laid before Doctor Bronson, who at once gave his permission for the youths to make the excursion without him. He did not care particularly for it, and said he would be satisfied to look at Guadalajara through their eyes.

They immediately secured

places in the Pullman sleeping-car for Irapuato, and were off by the train that evening. By good-fortune they were introduced during the day to a Mexican gentleman, Señor Sanchez, who had a large hacienda near Guadalajara, and was then on his way to it.

With the customary politeness, he informed the youths that his "house and all it contained were theirs;" he followed up the formality by inviting them to spend a day or two with him, either on their outward or return journey. They took the hint, and concluding that he desired to have a little time to himself on his arrival, they arranged to stop off on their return from Guadalajara.

It is 353 kilometres from Mexico City to Irapuato, and 260 from that station to Guadalajara, a total of 613 kilometres, or 380 miles. The

country from Irapuato is for the most part broken, but it contains few high mountains, and here and there the youths found themselves looking across plains of considerable extent. The region is well peopled, and there are several towns or cities along the route, each of them containing upwards of 5000 inhabitants. There are many arroyos and barrancas that severely taxed the abilities of the engineers, but they are insignificant when compared with the great barrancas between Guadalajara and the western coast. Construction parties are at work on the western section of the route, and in due time the locomotive from Guadalajara will sound its whistle at San Blas, on the shore of the Pacific Ocean.



AN INTERIOR TOWN.

"There are some interesting bridges along the old diligence-road," said Mr. Sanchez, "that have excited the admiration of travellers. A few miles this side of Guadalajara there is a stone bridge of nineteen arches which crosses the Rio Grande de Santiago. Nobody can tell when it was built; it bears at one place the date 1740, but whether that refers to the construction or to the repair of the bridge I am unable to say. At each end there are the statues of the King and Queen of Spain at the



AT THE HACIENDA.

old structure near Zapotlanejo, called the Bridge of Calderon, which crosses a narrow but deep arroyo. It is of interest to the student of Mexican history, as it is the point at which the patriot Hidal-

go, with 80,000 Indians, was defeated by a few hundred Spaniards. His men were armed only with bows and arrows and spears, in addition to a few old muskets and some wooden cannon that burst at the first fire; the Spaniards were well armed, and had six or eight cannon, which wrought havoc among the followers of the patriot priest. They were so ignorant of the power of gunpowder that they rushed up to the cannon and crowded their hats into the muzzles, in the expectation that they would thus prevent the pieces from going off. Thousands of them were mowed down, and finally the remnant were driven from the field. This was the last great battle fought by Hidalgo; he retreated to Chihuahua with a hundred followers, and not long afterwards was betrayed, captured, and executed.

"The country around here was formerly terribly infested with brigands," he continued, "but they are rarely heard of now. A large number were killed off by the Government troops, others by private enterprise, and finally those that remained were induced to quit the business of robbery, and become members of the Rural Guard."

"You mention private enterprise as a way of getting rid of brigands," Fred remarked. "I do not understand it exactly."

"I can best explain the matter by giving an illustration," Señor Sanchez replied. "There is a hacienda called Venta de Los Pagarros about twenty-five miles from Tepotitlan, which belongs to Señor Perez. It is



A CORNER OF THE MARKET-PLACE.

twenty miles long, and there are nearly 50,000 head of cattle upon it. Señor Perez bought it for a very low price, as the robbers had driven away the former occupants, and nobody dared live there. He strengthened his buildings so that nothing but artillery could do anything against them, and then he organized his men into a military force and armed and drilled them till they were excellent soldiers. They were all well

mounted, and he had thus a force of 200 men about him, ready to start at an hour's notice by day or night. When a band of robbers was heard of, it was pursued and hunted down, and no prisoners were taken. In two years nearly 100 robbers were killed by Perez and his men, and the country became quiet. Other proprietors followed his example and brought about a peaceful state of affairs."

"That is very much the plan on which the owners of the great mills at Queretaro protected themselves," Fred remarked, and then the conversation changed to other topics.

There were broad fields of wheat and barley visible from the windows of the train, and Fred observed that the fields were separated, and protected from the incursions of cattle, by fences or hedges of cactus. Their new friend explained that it was the cheapest fence in the world to make; they had only to take the long shoots of the organ cactus, cut them into proper lengths, and stick these lengths, or sections, into a trench where the fence was to be. The dirt piled around the end of the sections serves to keep them in place, they soon take root and grow, and as they live for a hundred years or so the owner has no further trouble with them. No animal larger than a rabbit can get through such a fence, and it is equally impervious to a man unless armed with a hatchet.

Señor Sanchez left the train at a station about forty miles east of Guadalajara. The youths named a day when they would visit him, and then continued their journey to the city.

For what they saw and did in Guadalajara we will refer to Fred's note-book:

"It is a handsome city," said the youth, "and we are not surprised to learn that it is considered next to Mexico in importance. It has a dozen or more fine churches, and its cathedral, which was completed in 1618, is one of the oldest in the country, and is considered next to those of the capital and Puebla in point of wealth and grandeur. It occupies one side of the Grand Plaza, has two tapering steeples and a handsome dome, and altogether is well calculated to impress every beholder, whatever may be his religious leanings.

"The interior reminded us of the cathedral of Mexico in a general way, though the detail is greatly varied. What surprised us most was the high altar, which is thirty feet high and broad in proportion, and as rich as carving and precious metals can make it. It was made in Rome, and hauled here, we cannot tell how, over the terrible roads between this place and Vera Cruz. Some of the blocks weigh several tons, and we shuddered as we thought what an expenditure of muscle, human and quadrupedal,

must have been required to bring these masses of stone from the sea-coast 500 miles away.

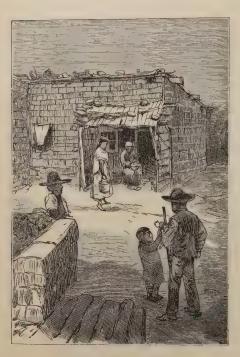
"The building has suffered from the elements, the cupolas of the towers having been thrown down by an earthquake in 1818. Some time in the sixties lightning struck the cathedral during service, and two of the



COURT-YARD OF A PRIVATE HOUSE.

organists were killed by the shock. There are many valuable paintings in the cathedral, and in the vaults beneath it are the bones of the bishops and priests that have died here during the last 300 years and more.

"We visited several other churches, and went to the great hospital of San Miguel de Belan, which is generally known as 'The Belan.' It is near the centre of the city, and covers, or rather encloses within its walls, about eight acres of ground. It was founded about 100 years ago, and at one time had a very large revenue; but successive revolutions and robberies have plundered it of nearly all its possessions. It had an income of



IN THE POOR QUARTERS.

\$1,000,000 a year in its best days, but has barely ten or fifteen thousand at present.

"It is the best constructed hospital edifice we ever saw, and we're very sorry Doctor Bronson is not here to see and appreciate it. The buildings are only one story high, so that the patients, doctors, and nurses have no stairs to climb, and the rooms are twenty-five feet from floor to ceiling, and well ventilated. The thick walls and roof make the place warm in winter and cool in summer; and they told us there is no artificial heating, and but little change of temperature throughout the year.

"There is another immense establishment, called the Hospicio de Guadalajara, which is an asylum rather than a hospital, and an

asylum for everybody. It was founded about the same time as the Belan hospital, by some gentlemen of immense wealth, and they are said to have expended eight or ten millions of dollars in building and endowing it. Sixteen hundred people are accommodated there, from infants only a few hours old up to people who are nearing the end of a century of life. It has sixteen departments that comprise an Infant Asylum, Reform School, Juvenile School, Orphan Asylum, Deaf and Dumb Asylum, Blind Asylum, Home for the Aged and Indigent, High-schools for Boys and Girls, School of Arts, Schools of Trades, Workshops, College, and Hospital!

"We saw boys in the workshop making shoes, clothes, hats, and other articles of wear, while others were at work at carpentering, and still others were setting type and working a printing-press of the old-fashioned kind. In the girls' section there were classes in sewing, knitting, lace-making, and

the like; and there were classes of young women who were learning fine embroidery, music, and painting, to fit them for governesses in families. It would take too long to write down all we saw and heard, and you might get tired before you read it through. We couldn't help wishing that some of our very rich men would endow just such establishments in New York, Boston, Philadelphia, and other large cities of the United States, and take their reward in the knowledge that they had done a great deal of practical good.

"We were told that the city has an excellent system of public education, and many of its people think it is the best in the whole country. There are twenty primary day schools, five evening schools, and two highschools or *liceos*, one for boys and one for girls. The girls' high-school is in an old convent which was confiscated at the time of the Reform, and is admirably adapted to its uses. The boys' high-school is in an equally spacious building, and the two schools have each four or five hundred pupils, with a proportionate number of teachers. The boys' school has a library of 30,000 volumes, gathered mainly from the monasteries and convents. Then there are a School of Arts and Industries and a School of Painting similar to that of San Carlos, though somewhat smaller.

"They have an opera-house and theatre here, and of course such an enlightened city as Guadalajara must have a bull-ring. This ring is equal to the principal one at the capital, and the 'sport' in it is liberally patron-

ized. There are four large cotton-factories here, and there is a considerable industry in making pottery. We have mentioned elsewhere the pottery of Guadalajara, which is famous throughout the country and largely exported. We have bought a considerable number of the clay statuettes that are sold here; they represent all the industries and characters of Mexico, the



MEXICANS PLANTING CORN.

prominent men of the country, and in fact of the whole world. Statuettes twelve inches in height and well modelled and colored are worth about twenty-five cents each, and you can buy smaller ones as low down as a cent or even half a cent apiece. They offered to make busts or statuettes

of Frank and myself for three dollars each, and have them ready in two days, but we declined the proposal.

"As for the people and the sights and scenes of the streets, they are so much like what we have described elsewhere that I will not venture upon an account for fear of repetition. We will say good-by to this interesting city, and return to the capital, stopping a day at the hacienda of Señor Sanchez."

They kept their promise and visited that hospitable gentleman, who organized a *rodeo*, or cattle-muster, for their benefit. The *vaqueros*, or herdsmen, rode away in different directions, and after an absence of an



A RODEO.

hour or two reappeared driving numbers of cattle before them. These cattle were assembled in a large drove, and there was a continuous pawing, bellowing, and dashing here and there as long as they were together. The vaqueros showed their skill in lassoing the animals, seizing them by the leg or horn according to previous announcements of their intentions. The performance ended with a contest of skill in picking up hats or other objects on the ground. Frank placed a silver dollar edgewise on the ground, and half a dozen vaqueros, one after the other, endeavored to secure it.

The first, second, and third missed it by only a fraction of an inch.

The fourth tumbled it over but did not catch it. It was set up again for the fifth, who missed, and saw the coin taken in by the sixth and last as he rode past at a gallop.

Their host pressed the youths to remain longer, but they felt that they might interfere with Doctor Bronson's plans by so doing, and therefore declined the invitation. They returned to the capital without any other break in their journey, and were warmly congratulated by the Doctor on the good use they had made of their time.



DRIVING A HERD.

CHAPTER XXIII.

INTERVIEW WITH PRESIDENT DIAZ; HIS PERSONAL APPEARANCE AND HISTORY.

—A CHECKERED CAREER.—SAVED FROM THE SEA.—THE FAITHFUL PURSER AND HIS REWARD.—CHARACTERISTICS OF DIAZ'S ADMINISTRATION.—MADAME DIAZ.—A DIPLOMATIC MARRIAGE.—THE ARMY AND NAVY OF MEXICO.—THE POSTAL SERVICE.—NEWSPAPERS AND OTHER PUBLICATIONS.—PRINCIPAL WRITERS OF FICTION.—FROM MEXICO TO PUEBLA.—HOW THE MEXICAN RAILWAY WAS BUILT.—DIFFICULTIES OF ENGINEERING.—APIZACO.—THE CITY OF THE ANGELS; ITS CATHEDRAL AND OTHER CURIOSITIES.—MANUFACTURES OF PUEBLA.—BATTLE-FIELD OF CINCO DE MAYO.

IT was a fortunate thing for the youths that they did not remain another day at the cattle-hacienda of Señor Sanchez. After listening to a short account of what they had seen, Doctor Bronson told them that he had a pleasurable surprise in store for the next day.

"If it's a surprise," said Frank, "I suppose we must wait and ask no questions."

"There's no occasion for secrecy," responded the Doctor. "The American Minister has arranged for me to have an interview to-morrow with the President of the Republic, and you can accompany me."

"That is a pleasurable surprise, indeed," said Frank, and Fred promptly expressed a similar opinion.

"I am to go to the legation at eleven o'clock," continued Doctor Bronson, "and meet the Minister, who is to present me to the President. The interview is fixed for half-past eleven at the National Palace."

It is unnecessary to add that Frank and Fred were ready at the appointed time, and that a carriage left the door of the hotel early enough to deposit the trio at the door of the legation a few minutes before eleven. The arrival at the palace was duly arranged, and the party was in the anteroom of the President when an official came to call them to an audience with the President.

The time of the chief of a nation is valuable, and the interview was over in about twenty minutes. There was nothing official about it, and the visitors came away much pleased with the way they had been received. The conversation ran upon general topics; it related chiefly to what the strangers had seen during their visit to the country, and some pleasant

allusions on the part of the President to the United States and a few of its public men. He did not follow the customary form of politeness by saying that his house and all it contained were theirs, but as they rose to leave he shook hands with them cordially, and said that if he could be of any service during the rest of their stay, he hoped they would not hesitate to apply to him through his and their friend, the American Minister.

"A more courteous gentleman than President Diaz," wrote Frank, "it



PRESIDENT PORFIRIO DIAZ.

would be difficult to find, and I believe this is the testimony of his opponents as well as of his friends. Perhaps you would like to know something about his history; well, here it is:

"Porfirio Diaz was born in August, 1830, in Oajaca, and was educated

there. He began the study of law, but in the war between the United States and Mexico he entered the army and fought in defence of his country. He remained in the army and studied military science for several years, when he went back to law again, on account of the triumph of the



VIEW IN OAJACA.

party that gave the Dictatorship of Mexico to Santa Anna. He fought in the revolution that drove Santa Anna away in 1855, and a few years later he joined the Liberal party in the War of the Reform. He continued with the Liberals during the French occupation; at the capture of Puebla by the French, in 1863, he was made prisoner, but escaped. He was then given the command of the Liberal army, but accepted it on the condition that he should soon be replaced, as he was afraid that his youth might cause the older generals to be jealous of him.

"He fought all through the war under great discouragements, was captured a second time, and a second time escaped. After the retirement of the French from Mexico, in 1867, he rapidly increased his army,

and besieged and captured Puebla; then he laid siege to the city of Mexico at the same time that Maximilian was being besieged by another part of the Liberal army at Queretaro. In the following autumn he was a candidate for the Presidency, but was defeated by Juarez; then he laid plans for a revolution, but was unsuccessful and obliged to flee from the country. He went to New Orleans, and after a time was permitted to return; then he was concerned in another revolution, and went again into exile, whence he was called back by his friends in Oajaca, who had revolted against the Government.

"In his return he ran a great risk, as he was obliged to come to Mexico by way of Vera Cruz. He took passage under an assumed name, and remained in his room on the steamer under pretence of being sea-sick. When the steamer was leaving Tampico he suspected that his identity had been discovered by the officers of a Mexican regiment, which had been taken on board at that port. Discovery and arrest meant execution, and he jumped overboard and endeavored to swim to the shore, which was about ten miles away. The captain thought he was a lunatic, and sent a



SAVED FROM THE SEA.

boat after him; he fought against being rescued, but was taken into the boat and returned to the ship. The purser took charge of him, and Diaz immediately told who he was, and asked for protection.

"The purser promised it. The colonel of the regiment suspected that Diaz was on board, and in the hearing of the latter offered \$50,000 for information that would lead to his capture. Diaz tells how his heart sank

when he heard the offer, and how it beat with satisfaction when the purser replied that he knew nothing about the insurgent leader.

"The purser smuggled him on shore disguised as a coal-heaver, and Diaz reached Oajaca in safety. After his elevation to the Presidency one of the first things he did was to appoint that purser a consul to represent Mexico at a French seaport, and afterwards gave him the consulship at San Francisco.

"The Oajaca revolution was successful; Lerdo, who was then (1876) President, was driven out of the country, and there was a very disturbed state of affairs for a time. It ended in the election of Diaz as President; he held the office from May, 1877, till November, 1880, when he was succeeded by President Gonzales, the Constitution then in force, and originally proposed by Diaz, forbidding the President to succeed himself. He succeeded Gonzales in 1884 for a second term of four years; in 1887 the Constitution was modified so as to permit the President to serve for a third term, and in consequence of this modification he was again elected in that year. On the 1st of December, 1888, he took the oath of office, in accordance with the Constitutional provisions, and began his third term, which will expire December 1, 1892.

"There you have a personal history boiled down. President Diaz is a thorough believer in general education, and in railways, telegraphs, and other modern enterprises; in this belief he has been bitterly opposed by the Reactionary party, which is principally composed of the old aristocracy. In his first term concessions were granted for the construction of railways by American companies, and other concessions have been made since that time. One writer who is not particularly friendly to the President says: 'Under the administration of Diaz manufactures have increased, the resources of the country have been developed, commerce has multiplied, education has been advanced, the revenues have been appropriated to the purposes for which they were designed, travel is safe, bandits have been dispersed, and railroads and telegraphs are extending.' And from all we can learn this is by no means an overstatement of the case."

For the benefit of his young lady friends at home Fred added to Frank's sketch that President Diaz had been twice married, his present wife being the daughter of Hon. Romero Rubio, Secretary of the Interior. She is said to be a beauty of the brunette type, charming in manners, an accomplished linguist, speaking several languages, of which English is one, and an exquisite judge of feminine apparel. Her dresses are made by Worth, the famous man-milliner of Paris, and therefore she may justly be considered the leader of fashion in the capital of Mexico. Her duties are

less onerous than those of the wife of the President of the United States, as there are no receptions similar to those of the White House, and consequently the Mexican capital is free from the social ferment which is constantly going on at Washington.

Doctor Bronson added a note to the effect that there was a considerable amount of diplomacy in the marriage of President Diaz with his pres-

ent wife. Her father was one of the leaders of the Church party. and the marriage strengthened Diaz with the Conservatives by making them less hostile to him and his policy; the party was further conciliated when Señor Rubio became Secretary of the Interior, and other members of the old opposition were provided with places under the Government. But though the hostility of the Church party has been diminished it still exists: its leaders are ready to take advantage of any mistake of the Government, and if they could again obtain control they would speedily overthrow the present Constitution, whose authority they have never acknowledged.

"The hostility of the two political parties in Mexico to each other," added the Doctor, "is far greater than that between the two great parties of the United States. The Liberal party in Mexico be-



HOUSE WITH TILE FRONT.

lieves in general education, in the construction of railways, the encouragement of manufacturing and other commercial enterprises, and a complete separation of Church and State. The Clerical party believes in the condition of affairs which existed before 1858, in a union of Church and State, and the control of education by the Church, and it has been a steady and consistent opponent of the railways that connect Mexico with the United States. It looks with alarm upon the present influx of foreigners and the

adoption of their ideas by the Mexicans. It is proper to add that this alarm is shared by many adherents of the Liberal party, who fear that their country is being denationalized, and will some day be gathered into the fold of the United States."

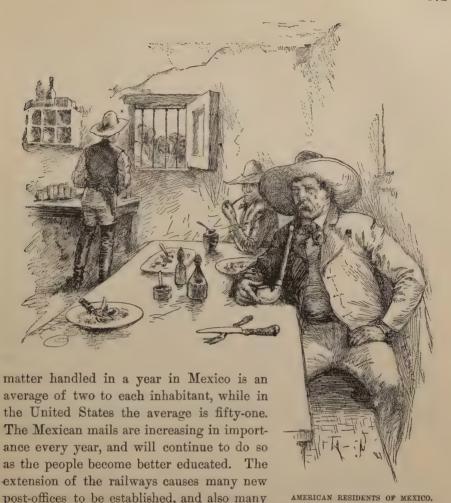
Frank and Fred examined the Constitution of Mexico, and found that it had many points of resemblance to that of the United States. Each of the States has the right to manage its own local affairs, but all are bound together for general governmental purposes. The central government consists of legislative, judicial, and executive branches, as in the United States; the President is the executive head, and the Senate and House of Representatives form the legislative branches. There are two Senators for each State, and one Representative for every forty thousand inhabitants; Senators and Representatives alike receive \$3000 a year. Congress meets on April 1st and September 16th, and each of its sessions lasts two months. During the interim between the sessions a permanent committee of both Houses remains at the capital. Representatives must be twenty-five years of age, and Senators thirty years, and both must be residents of the States they represent. All religions are tolerated, but no ecclesiastical body is allowed to acquire landed property.

Regarding the army and navy Fred wrote as follows:

"The President is commander-in-chief of the military and naval forces, just as he is in the United States. According to the official figures, the war footing of the army comprises 3700 officers and 160,963 men; these are divided into 131,523 infantry, 25,790 dragoons, and 3650 artillerymen. On a peace footing the army includes about 30,000 men of all arms of the service, including the Rurales, who keep the brigands in order, as we have described elsewhere. A friend at my elbow says the officers are almost as numerous as the privates, and he has known a garrison where there were twenty-nine officers and only twenty-seven soldiers.

"The navy won't take long to describe, as it contains three small gunboats and two larger ones. The small gunboats each carry one 20-pound gun, and the larger boats two guns of the same calibre. They are unarmored vessels, are not fast, and from all we can learn we don't think the navy of the United States need have any fear of that of Mexico, at any rate, after we complete some of the ships we are now building."

"While we are considering public matters," wrote Frank, "let us look at the Postal Department. There are about 1200 post-offices in the republic, or one for every 8750 inhabitants; in the United States we have a post-office for every 1200 inhabitants, or seven times as many as Mexico in proportion to the population. The number of pieces of mail



AMERICAN RESIDENTS OF MEXICO.

miles of telegraph and 500 telegraph offices; 14,000 miles of telegraph belong to the Government, and the remaining portion is the property of private companies, railways, and individuals.

telegraph offices. There are more than 20,000

"If you want an example of progress look at the railways. Mexico had 379 miles of iron roads in 1879, while in 1887 it had 3962 miles open for traffic, including 92 miles of city and suburban lines. The length of railway completed and in operation at the end of 1888 was something more than 4600. Competent authorities say that by the end of 1889 the length of railways in operation in Mexico will exceed 5000 miles. A great many concessions for railways have been granted by the

Government for lines that are not likely to be constructed in the life of the present generation. At one time there seemed to be a mania for railway concessions, and the holder of a permission to build a line over an impracticable route, between two insignificant points, believed that he would be able to sell it for a fortune to an English or American corporation.

"Newspapers and other publications have increased in the last few years, but not as rapidly as have the railways. The number is constantly changing, new publications being started and old ones discontinued; and



A MILITARY POST.

sometimes the starting and discontinuance are very close together, as is the case in other parts of the world. Altogether there are about 300 newspapers in the republic, and of this number fully one-third are published in the capital. Mexico City has as many newspapers as New York or Chicago in proportion to its population, but their circulation is not by any means as large; Mexican publishers are not obliged to stretch their consciences by making affidavits every morning as to the hundreds of thousands of copies they printed on the previous day, or the hogsheads of ink they used for each edition. But though they may not print and sell as many copies as the New York dailies, it is certain that the Mexican papers are steadily gaining in circulation and influence, and the future is full of promise for them.

"The capital city has a daily paper called The Two Republics, which

is printed in English; it is specially interesting to strangers, as it has a list of the things and places they wish to see, and contains time-tables of the railways. Sometimes it has special despatches from the United States and other parts of the outside world, but as it has no competitor and its circulation could not be greatly increased by a large expenditure, it wisely studies economy to an extent that would not succeed in New York. There's a weekly paper called *The Mexican Financier*, printed in English and Spanish; it circulates all over the world, and is an excellent authority for everything relating to railways, banking, and commercial matters in general. The *Financier* discusses important questions relating to the affairs of the Government, attacks abuses of every kind, and suggests ways in which the prosperity of the country and the welfare of the people may be improved.

"The French population is large enough to have a daily paper in its own language, and the Germans have a weekly one. There are twelve or fifteen dailies in Spanish, and they represent all shades of politics. Generally it pays better for a newspaper to be on the side of the Government than against it; but some of the opposition papers are profitable, and edited with much ability. The style of opposition writing here is to attack very savagely, and sometimes the editors find themselves in prison on



A COUNTRY POST-OFFICE.

account of the bitterness of their editorials and their sweeping charges against public men and measures. Some of the editorials we have read since we came here surpass anything in New York or Chicago papers in the heat of political campaigns, and that is saying a great deal. The editorin-chief of *El Monitor Republicano* served a sentence of seven months in

the Penitentiary for a too free use of his pen. He was charged with exciting sedition; he was ably defended, and his case was carried to the highest court in the country, which affirmed the decree of the lower courts.

"You couldn't remember them all if we should give a list of the daily papers in Mexico, and so we refrain; still worse off would you be with the names of thirty or more weekly papers, and as many monthlies and



COMPOSITOR FOR "THE TWO REPUBLICS."

other periodicals. You can find publications here on almost any topic that one could name, and you can find an abundance of romances, at least that is what they tell us. The popular novels deal mostly with Mexican life, manners, and history; a friend tells us that we should read 'Guadalupe,' by Irenio Paz, 'Calvario y Tabor,' by Vincente Riva Palacio, and 'Paisajes y Leyendes,' by Ignacio Manuel Altamirano. The first is a novel, describing Mexican home scenes and life; the second is chiefly concerned with the reign of

Maximilian, and the sufferings of the people during the foreign invasion; and the third is an account of the manners and customs of the Mexican people in former times and at present. We intend to get these books, and read them at our leisure on the way home."

The delightful and interesting visit of our friends to the Mexican capital came to an end, as all things must. Farewell calls were made upon friends and acquaintances, and early one morning the trio left the hotel for the station of the Mexican Railway, as the line from the capital to Vera Cruz is called. The daily passenger train leaves at 6.30 A.M., and reaches Vera Cruz, or rather is due there, at 7.33 p.m. The distance is 263 miles, and there is a branch line to Puebla twenty-nine miles in length.

The manager of the hotel told our friends that it was advisable for them to procure tickets, and check their trunks in the afternoon preceding their departure, else there might be mistakes and consequent delay in getting away. Assisted by one of the runners of the hotel, Frank attended to these formalities, and completed them to his entire satisfaction. Tickets were taken to Puebla, and baggage checked to that place; the trunks were carefully weighed, and all exceeding thirty-three pounds to each passenger was heavily charged for. Frank remarked that evidently the managers of the line were not running it for fun, but to make money.

"And well they may," said an American gentleman who was talking with the Doctor when the youth returned from the station. "This line of railway is one of the most expensive in the world," he continued, "partly in consequence of the difficult engineering over the mountains and partly by reason of the wastefulness of its builders. According to the report of the Minister of Finance, its total cost was \$36,319,526, or at the rate of more than \$123,000 per mile; it was built with English capital, aided by Mexican subsidies.

"It was begun in 1852, though there had been a concession for a line as early as 1837. The concession included a Government subsidy, and one of the conditions was that construction should be pushed from both ends of the line towards the middle. This necessitated the transportation to the city of Mexico of rails, locomotives, cars, and all sorts of building material over the old diligence-road; the transport of these things gave employment to great numbers of men and animals, but increased the cost enormously, probably twice what it would have otherwise been. The work was suspended several times by revolutions, wars, lack of funds, change of government, and other obstacles; and the line was not completed until the end of 1872. It was inaugurated by President Lerdo, on the 1st of January, 1873, having been solemnly blessed by the Archbishop of Mexico the previous day.

"When you see the section between Boca del Monte and Orizaba, where the railway descends 4,000 feet in twenty-five miles, with numerous curves of 300 feet radius and gradients of three or four per cent., you will not wonder that a great deal of money was expended in crossing the mountains. While the surveys were being made it was frequently necessary to lower the engineers by means of ropes over the precipices, and the workmen were often suspended in this way until they could cut deep enough into the side of the mountain to obtain a foothold."

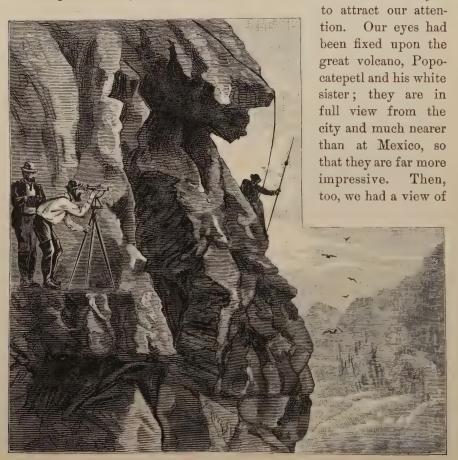
There was not much of interest along the railway line as the train rolled out of the capital. Our friends found themselves skirting Lake Tezcoco, and they had a near and farewell view of the famous church of Guadalupe; in order to avoid heavy grades, the railway takes a circuitous course, and is much longer than the wagon-road connecting the capital with Puebla. For many miles it is bordered on both sides by fields of maguey; Frank and Fred estimated that the acres of maguey plants they had seen since entering the country were sufficient to supply pulque enough for a population three times as large as that of the republic at the present time.

As they neared Apizaco they saw some changes in the general aspect

of the country, but it was still the *tierra fria*, or cold region, in which they had been so long sojourning. At Apizaco they changed to another train, which took them over the branch line to Puebla, landing them at the station of that city at the hour of noon. They sought the Hotel Diligencias, and found it a comfortable establishment, from a Mexican point of view.

Puebla is a city of 70,000 inhabitants; it is old and wealthy, and its cathedral is one of the finest in Mexico—some do not hesitate to give it higher rank than the cathedral of the capital. Our friends went the usual round of sight-seeing in the city, and according to custom, one of the first things they saw was the cathedral.

"Stop a moment," said Frank, "the cathedral was not the first object

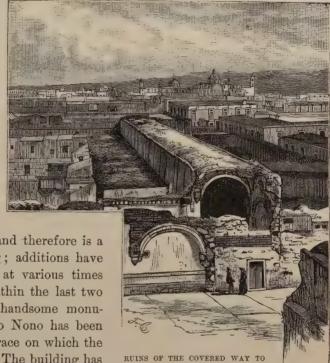


SURVEYING UNDER DIFFICULTIES.

the noble peak of Orizaba, of which we shall have more to say later on.

"Puebla has so many churches," continued Frank, "that you can't expect us to visit all of them. We went to the cathedral, which was con-

secrated in 1649, and therefore is a venerable building; additions have been made to it at various times since then, and within the last two or three years a handsome monument to Pope Pio Nono has been erected on the terrace on which the cathedral stands. The building has two fine towers; we climbed to the top of one of them, and had a fine



THE INQUISITION.

view. Fred and I did the climbing, while the Doctor remained below.

"You can judge of the richness of the interior when I tell you that the high altar cost more than \$110,000. There are eighteen bells in the tower, the largest of them weighing nine tons, and an inscription on the tower tells that this large bell cost \$100,000. The chapels abound in sculpture and paintings, and if we should make a list of them, without any comment whatever, I'm afraid you would find it too long for patient perusal. The cathedral is 323 feet long by 100 wide, and occupies an imposing position which is well calculated to impress the beholder.

"We visited two other churches, the San Francisco and La Compañia, and found them well worth the time we devoted to them, and a great deal more than we could spare. Our guide showed us the ruins of the covered way to the Inquisition; for Puebla, no less than the city of Mexico, had a branch of this institution of the Church. Puebla has always been noted as a religious city; it was founded as an antidote to heathen Cholula, which is only a few miles away, and its full name is Puebla de los

Angeles—'Town of the Angels.' Before the Laws of the Reform went into force four-fifths of the valuation of real estate and other property in Puebla belonged to the Church, and one-fifth to private individuals.

"Puebla has extensive manufactures of cotton cloth, glassware, and pottery. Like Guadalajara, it is famous for its pottery, and it is also famous for glazed tiles, which have been liberally used for ornamenting the houses, both inside and out. Domes of churches and their outer and inner walls are covered with these tiles, and the same is the case with many private



CATHEDRAL OF PUEBLA,

buildings. The effect is very pretty, though sometimes too gaudy for our taste; but then, you know, the Mexicans are fond of color. Another famous manufacture of Puebla is braided straw-work. Baskets and mats were offered to us in great quantity and variety, and we found them so pretty that we invested a handful of dollars in these articles. They will come in very well at Christmas-time for friends whom we wish to remember.

"The city has a Plaza Mayor, a Zocala, an Alameda, and a Paseo, just like any and every Mexican city. We gave a glance at them, and then went to the battle-ground of the *Cinco de Mayo* (5th of May, 1862). It is on the hill of Guadalupe, and from one point we have a view of three

snow-covered volcanoes, together with a fourth mountain that just barely misses reaching the snow-line. A much more important battle than that of the *Cinco de Mayo* was fought here April 2, 1867, when General Porfirio Diaz, now President, stormed Puebla and captured the imperial garrison."



STREET SCENE IN PUEBLA.

CHAPTER XXIV.

FURTHER SIGHTS IN PUEBLA.—ECCLESIASTICAL BUILDINGS.—SCHOOLS, HOSPITALS, ASYLUMS, AND OTHER PUBLIC INSTITUTIONS.—CHOLULA AND ITS GREAT PYRAMID.—FIRST SIGHT OF THE PYRAMID; ITS CHARACTER, SIZE, AND PECULIARITIES.—ANCIENT CHOLULA.—MASSACRE OF INHABITANTS BY CORTEZ.—RUMORS OF BURIED TREASURES.—HOW A CRAFTY PRIEST WAS FOILED.—VISIT TO TLASCALA.—THE STATE LEGISLATURE IN SESSION.—BANNER CARRIED BY CORTEZ.—FIRST CHRISTIAN CHURCH IN AMERICA.—ANCIENT PULPIT AND BAPTISMAL FONT.—A REVERED SHRINE.—FROM TLASCALA TO APIZACO AND ONWARD TOWARDS THE GULF.

"IN the height of its glory," said Fred, "Puebla contained more than ninety churches. In 1869 it had sixty churches, nine monasteries, twenty-one collegiate houses, thirteen nunneries, and numerous chapels and shrines. The confiscation of ecclesiastical property has reduced the number of the churches to little more than twenty, abolished the nunneries



PART OF PUEBLA.

and all the monasteries except two, which are really hospitals or almshouses for old and disabled priests. Some of the confiscated buildings have been sold for private uses, and others converted into schools, hospitals, libraries, and other Government establishments for local, State, or general government use.

"Doctor Bronson had a letter of introduction to the superintendent of the Hospital de Dementes, or Insane Asylum, which is in the building that was formerly the nunnery of Santa Rosa. We accompanied the Doctor when he went to deliver the letter, and were politely received and shown through the establishment. The hospital appears to be well managed, and Doctor Bronson was much interested in it. Of course the building was particularly attractive to Frank and myself, as we wanted to see how the nuns were lodged in the olden times. They certainly had a most delightful home so far as the eye was concerned, and I don't wonder that the nunneries in Mexico were popular among the women. The decorations everywhere were of beautiful tiles; the courts and their walls, the walls of rooms, the ceilings, the oratories, the bath-rooms, and even the kitchens and cooking stoves, were all covered with finely painted and glazed tiles. It is easy to keep such rooms clean, and we certainly have never seen a cleaner and neater building anywhere. We did not ask whether the attractions of the place had any beneficial effect upon the insane patients, but certainly they ought to have.

"From all we could observe, the city is admirably provided with hospitals, schools, and asylums, and no doubt the fact that so many suitable buildings were ready at hand had something to do with their number. Then, too, the Church had made liberal provision for the sick and suffering, and the Government here, as in other cities, had the good-sense not to undo the philanthropic work which was so long carried on under religious auspices. In the general hospital half the patients are treated by allopathy and half by homeopathy. The advocates of either system can readily demonstrate its superiority over the other, as they can in other countries besides Mexico."

Every visitor to Puebla should go to Cholula, and particularly to its great pyramid, which is, in some respects, the most remarkable edifice on the American continent. In point of fact, very few visitors fail to see it, and many of them go to Cholula before doing anything else.

"It is an easy excursion," wrote Frank, "as Cholula is only six or seven miles from Puebla, and can be reached by a tram-way which deposits you at the very foot of the great pyramid. A special car for sixteen persons or a smaller number can be had for ten dollars, and it is

as much subject to your orders as a private carriage would be. As we were three instead of sixteen, we decided to go in the ordinary way, paying fifty cents each for the round trip. The cars afford a fine view, and altogether we greatly enjoyed the excursion.

"We took a guide from the hotel, and he called our attention to the various buildings and other objects, of which there were so many that they are considerably confused in our recollection. We crossed the



PYRAMID OF CHOLULA.

Attoyac Valley, which abounds in fields of grain, and is dotted with ruined churches and monasteries, one of the latter having been converted into an iron-foundery and another into a cotton-mill. There is an old Spanish bridge crossing the Attoyac River, and the Mexicans have shown their ability to utilize the water-power of the stream by building several mills upon it.

"We had not gone far before our eyes took in the mound, or pyramid of Cholula, and also the great volcanoes of Popocatepetl and the White Woman all in one view. The mound did not seem insignificant, although backed by these great mountains; they are thirty miles away,

though they seem much nearer, while the pyramid is close upon our horizon and steadily swells into the sky as we approach it.

"This is a good place for a bit of history. Cholula was an important city, and covered a large area, when Cortez came to Mexico; under the conquerors it had at one time fifty churches and other ecclesiastical buildings, but now it has dwindled to a population of less than 5000, and most of its former edifices are in ruins. The great pyramid is the principal monument of the Aztecs, and in fact it is the best preserved of their monuments to-day in all Mexico. For a picture of what it was when Cortez looked from its summit, we have read with great interest the description in Prescott's History. Here it is:

"'Nothing could be more grand than the view which met the eye from the truncated summit of the pyramid. Towards the north stretched



VIEW FROM THE TOP OF THE PYRAMID.

the bold barrier of porphyry rock, which Nature has reared round the Valley of Mexico, with the huge Popocatepetl and Iztaccihuatl standing like two sentinels to guard the entrance of this enchanted region. Far away to the south was seen the conical head of Orizaba soaring high into

the clouds, and nearer, the barren, though beautifully shaped Sierra de Malinche, throwing its broad shadows over the plains of Tlascala. Three of these volcanoes, higher than the highest peak in Europe, and shrouded in snows which never melt under the fierce sun of the tropics, at the foot of the spectator the sacred city of Cholula, with its bright towers and pin-



SPORT AT CHOLULA.

nacles sparkling in the sun, reposing amidst gardens and verdant groves. Such was the magnificent prospect which met the eye of the conquerors, and may still, with slight change, meet that of the modern traveller, as he stands on the broad plateau of the pyramid, and his eye wanders over the fairest portion of the beautiful plateau of Puebla.'

"We are quite willing to adopt Prescott's description for our own, as the scene is the same to-day as in the time of Cortez, except that there is little left of the sacred city of Cholula, with its spires and pinnacles, its gardens and verdant groves. The pyramid is a stupendous structure, and worthy a place by the side

ure, and worthy a place by the side of the great pyramids of Egypt. It was long thought to be a natural mound, but all the excavations that have been made in it show that it is an artificial work, built by time and patience and the muscle of many thousands of men. Its interior is of earth, and its exterior was once stone and adobe, but time has covered much of the outside with earth, in which trees, grass, and bushes have taken root and grow luxuriantly.

"The car stopped at the foot of the pyramid, and there we alighted. There is a sloping road leading to the summit; it was built by the Spaniards, and in its construction much of the old masonry was removed. We ascended partly by this road, and partly by steps, pausing several times on the way in order to rest and take in the ever-changing view. We did not take the measurements of the mound, and therefore must give you the figures of others.

"Humboldt says the mound is 1400 feet square, covering forty-five acres of ground, and 160 feet high; another authority makes it 177 feet

high, and 1425 feet square. Another, and probably the most exact measurement, gives the following figures:

"North line, 1000 feet; east line, 1026 feet; south line, 833 feet; and west line, 1000 feet.

"The summit is a platform, or plateau, measuring 203 by 144 feet, and having an area of not far from one acre. This plateau has a stone parapet around it, and there is a chapel in the centre; the mound was evidently built in four stories, like some of the oldest pyramids of Egypt; but they are less distinct than the stories or stages of the famous pyramid of Sakkara, on the banks of the Nile, which is said to have been built by the children of Israel during their captivity.

"The sides of the pyramid correspond to the cardinal points of the compass, north, south, east, and west; and in this respect the structure resembles the great pyramid of Cheops. Nobody can tell when it was



LOCAL FREIGHT TRAIN.

built; the Aztecs found it here when they came, and the Indians whom they conquered said it was not the work of their ancestors. The Aztecs dedicated it to their god Quetzalcoatl, and every year they sacrificed on the summit of the mound thousands of victims in the manner we have described in our account of Tenochtitlan. When the Spaniards came here they found a statue of the Aztec deity on the place where the chapel now

stands; one of the first acts of Cortez was to destroy the statue, and order the erection of a church in its place.

"In his report to the King, Cortez said the city of Cholula contained 20,000 houses and the suburbs as many more. The people received him kindly, but he learned, or pretended to learn, that they were plotting against him. So he called a meeting of all the dignitaries, under pretence



A RELIC OF THE PAST.

of a consultation, and when they were assembled he ordered a general massacre. Six thousand of the people were slain, and for two days the city was given over to be pillaged by the Spaniards and their allies the Tlascalans, who were bitter enemies of the Cholulans. The Tlascalans were, of course, gratified with the slaughter and pillage, but Cortez offended them deeply when he refused to permit the sacrifice of the prisoners captured in the affair.

"We remained nearly two hours on the summit of the mound enjoying the magnificent view, and trying to picture the place as it was in and before the days of Cortez, and shuddering as we thought of the blood that had been shed there in sacrifices and by the swords of the conquerors. Fred made a sketch of the view, and then we descended and looked through the village, which contained very little of interest; next we took

a Mexican dinner at the Fonda de la Reforma, a small but clean restaurant on the Plaza Mayor. The plaza is as large as that of the capital city, but so little used that it is grass-covered in many places. There were few people there when we saw it, but they told us that it is quite lively on market-day, when everybody in the town comes there; there is a Zocala in the centre of the plaza, but it offered so few attractions that we did not visit it. We strolled through the ruined churches, and our guide told us that one of them, the Capilla Real, which consists of three churches in one, was built for the especial accommodation of the Indians. The massacre which Cortez ordered is supposed to have begun on the plaza, but no one knows the exact spot.

"The natives have a tradition that there are vast amounts of treasure concealed in the pyramid of Cholula, and we remark that this tradition seems to prevail concerning old structures in all parts of the world. We

heard it in Egypt, India, Japan, China, Palestine, and other countries, and presume we shall continue to hear it wherever we go until we give up travelling and settle down to home life.

"Mr. Brocklehurst tells a good story about a priest who once learned through the confessional that one of his parishioners had discovered the cave where Montezuma's treasures were hidden. He explains that there is a belief common through Mexico that at the time of the invasion Montezuma hid all his treasures, and afterwards he and his high-priest put to death all that assisted in the hiding, so that only they two should possess the secret.

"The priest persuaded the Indian to show him the cave, but it was only on the condition that he should be blindfolded while going to it. The

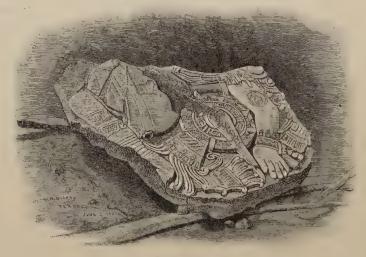


INDIAN FARM LABORERS.

priest thought to outwit the Indian, and so he managed to drop the beads from his rosary, one by one, as he walked along; in fact he had provided himself with several rosaries, so that he would have beads enough for the road.

"The priest saw the treasures in the cave and then walked home blindfolded, as he had come. When home was reached, the Indian remarked to his reverence, 'You had the misfortune to break your rosary, and drop the beads on the road; I picked them up, and if you count them you'll find they're all here.' And to this day no white man has found out where those treasures are concealed.

"Secrets are preserved generation after generation by these people; there may or may not be any treasures of Montezuma in the caves around Mexico, but if the Indians know of their existence and the place of their



AN AZTEC RELIC.

concealment, and believe it their duty not to reveal the hiding-place, nothing can ever wring the secret from them. Persuasion, threats, punishment, torture, have been tried repeatedly upon these primitive people, but all to no purpose.

"There is a document among the records of Tlascala which says a tribe of Tlascalans brought in large quantities of gold-dust, and gave to the Church enough to make and pay for the crown of the Virgin of Guadalupe. The Spaniards tried to find out whence it was obtained, but the Indians would not reveal the locality of the placer. Losing all patience, they tied up several of the Indians, and flogged them 'within an inch of their lives.' The Indians bore the pain without a murmur, and within a week the whole tribe left for Guatemala, and with them all who knew the location of the placer. To this day it has not been revealed."

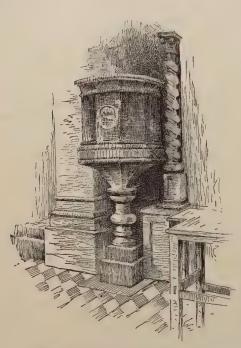
From Puebla our friends went to Tlascala, which is interesting on account of its connection with the Conquest of Mexico by Cortez. According to history and legend, it was an important city when Cortez landed at Vera Cruz; now it has barely 4000 inhabitants, and the greater part of its public buildings have disappeared. When Montezuma learned of the approach of Cortez he asked permission to send ambassadors to him through Tlascala, which was then at war with the Mexicans; the crafty Tlascalans gave the desired permission, but at the same time despatched an embassy to negotiate an alliance with the Spaniards, and join hands with them in subjugating the Mexicans. Of course this was exactly what Cortez wished, and the treaty was made before Montezuma could be heard from.



INTERIOR OF AN OLD CHURCH.

"We went by the morning train towards Apizaco," said Fred, "and stopped at the station of Santa Anna, nineteen miles from Puebla. There we found a tram-car, which carried us to our destination, three or four miles from the line of the railway. It took us through the curious and sleepy little town of Santa Anna, where not even the dogs showed any signs of activity, with the exception of one that was biting a flea. Then

we passed some ruined churches, went at full speed into the valley of the Attoyac, passed another town whose name I've forgotten, and pulled up at Tlascala in front of the hotel where we expected to have breakfast and pass the night. It was not a prepossessing hotel, but we thought it



FIRST CHRISTIAN PULPIT IN AMERICA.

might be endured for our brief stay; the result was better than we anticipated, as the food, thoroughly Mexican, proved toothsome, and the beds were hard enough to get us up early in the morning without any summons from a night porter.

"The State Legislature was in session, for Tlascala is the capital of the State of the same name, which happens to be the smallest commonwealth of the Mexican union. We looked in upon the meeting and found the members seated in two rows, facing each other; there were eight of them, and all were smoking as unconcernedly as though in their own homes. Doctor Bronson told us that smoking is permissible at all times in the Mexican Congress,

and therefore the State Legislatures only follow the example which is set by the higher body. At one end of the hall is a railing which shuts off a space for the President and his secretaries, and close by the rail there is a tribune where the members stand when making speeches.

"After looking at the Legislature and listening for a few minutes to a discussion relative to an appropriation for making a road from somewhere to somewhere else, we looked at the curiosities in the Legislative building, which seems to be quite a museum in its way. They showed us the banner which Cortez carried in his conquest of Mexico, and afterwards presented to the Tlascalans in acknowledgment of the great services they had rendered him. It is about ten feet long and forked, or 'swallow-tailed,' at the end; the fine and heavy silk of which it is made was once a beautiful crimson; but it has faded to the complexion of a decoction of badly made coffee; and the tassels and cords are somewhat

frayed and worn. Considerable sums of money have been offered for this banner on behalf of Spain, but the Tlascalans have refused all propositions for its sale. We saw also the grant of arms to the city signed by Charles V. of Spain, and the city charter bearing the signature of Philip II. and dated at Barcelona, May 10, 1585.

"There is a mass of official documents, all of great age, that we had no time to examine, but which would be of great interest to a student of Mexican history. They showed us the treasure chest, which had four locks; and it was explained that anciently the city was ruled by four chiefs, each of whom had a key to one of the locks. Each of these chiefs had a palace of his own, and when the Spaniards came they destroyed the palaces and erected churches upon their sites. Time is destroying the churches, and only their ruins remain to show where the palaces were.

"One of the documents preserved here is the Spanish translation of an order commanding that 80,000 picked men should march with Cortez against Mexico. Cortez personally gave orders for the translation of this historic paper. In the same room is the war-drum of the Tlascalans—

a hollow log two and a half feet long and six or eight inches in thickness, and covered with curious carvings.

"The object of greatest interest to us was the first Christian church and the first Christian pulpit erected on American soil. They told us that the structure now standing is the original one built by order of Cortez; it is in good preservation, and evidently has been well cared for. On the pulpit is an inscription which relates that the church was the first erected in 'New Spain.' Not far from the pulpit is the font in which the four chiefs of Tlascala were baptized

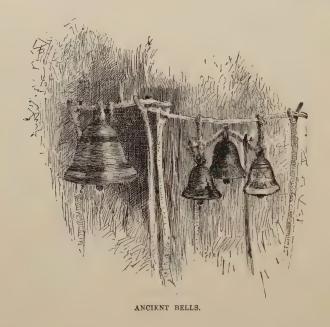


OLD BAPTISMAL FONT, TLASCALA.

in 1520; it is cut from a single block of black lava, resembles a huge bowl, and is of very creditable workmanship. The portraits of these four chiefs are preserved in the Legislative building, and each of them has 'Señor Don' prefixed to his Indian name; other portraits are in the same building, and there are many paintings in the church, but few that we saw possess any merit beyond that of an ordinary tavern-sign.

"While we were strolling about the town," continued Fred, "we saw some Indians coming in from the mountains with logs of wood which were to be cut into planks, and beams already shaped and finished. We judged that these timbers weighed not less than 400 pounds apiece, and

some of them little, if any, below 500 pounds. They carried these timbers as they carry most other burdens, slung over their backs and supported by straps crossing their foreheads. These are the descendants of the people that carried over the mountains the timber for the brigantines of Cortez which he launched on Lake Tezcoco and used for the reduction of Tenochtitlan. We examined a beam that one of the carriers had



placed on the ground, and found it to be of hard pine, twenty feet long, ten inches wide, and six inches thick. You may make your own calculation as to its weight if you think our estimates too high.

"There are several old churches in Tlascala in addition to the one we have mentioned, and we visited some of them more to pass away the time than with the expectation of finding anything of interest.

"In the afternoon we went to the shrine of Ocatlan, which is on a hill a mile or more from the grand plaza. This, we learned, was similar to the church of Guadalupe near the capital, as it commemorates the miraculous appearance of the Virgin to a poor, ignorant, but benevolent Indian named Juan Diego, in the years not long after the Conquest. The shrine is mostly of modern construction, and is greatly revered by the Indians, who come here in large numbers from all the surrounding country."

The party spent the night at Tlascala and left the place in season to

connect with the train from Puebla, which meets the downward train at Apizaco from Mexico for Vera Cruz. Their trunks went by the train of the previous day, and were waiting for them in care of the Apizaco station-master. They had an abundance of time for breakfast at the junction; the through trains stop there twenty minutes for meals, and our travellers arrived fully a quarter of an hour in advance of the train by which they were to depart.

Apizaco is eighty-six miles from the city of Mexico. For the next sixty miles of the journey there was nothing of special interest along the route, which traverses the table-land at an elevation of nearly 8000 feet above the sea. The highest point on the line is at the siding of Occocolan, between the stations of Guadalupe and Soltepec, where the elevation is 8333 feet. At Esperanza, near the edge of the great plateau, 152 miles from Mexico City, the barometer shows a height of 7900 feet. Here they met the up-train from Vera Cruz, which had left that city at 5.30 A.M., and was due in the capital at 7.30 P.M.

Just beyond Esperanza the train reached Boca del Monte, or "Mouth of the Mountain," and here began the descent to the *tierra caliente*. What our young friends saw in this descent will be told in the next chapter.



A NATIVE PLOUGHMAN.

CHAPTER XXV.

DOWN THE CUMBRES.—A MONSTER LOCOMOTIVE.—MALTRATA.—EL BARRANCA DEL INFERNILLO.—IN THE TIERRA TEMPLADA.—PEAK OF ORIZABA; HOW IT WAS ASCENDED.—AN OLD AND QUAINT TOWN.—EXCURSIONS IN THE ENVIRONS OF ORIZABA.—FALLS OF THE RINCON GRANDE.—MANUFACTURING INDUSTRIES.—CERRO DEL BORREGO.—THE MEXICAN ARMY ROUTED.—CORDOBA.—HOW TO RUN A COFFEE PLANTATION.—BARRANCA OF METLAC.—PASO DEL MACHO.—TIERRA CALIENTE.—DRY LANDS NEAR THE SEA—COAST.—VERA CRUZ.—ZOPILOTES AND THEIR USES.—YELLOW FEVER; ITS SEASONS AND PECULIARITIES.—NORTHERS AND THEIR BENEFITS.

THE plateau terminates suddenly at Boca del Monte, and here begins the descent of the *cumbres*. At Esperanza the train exchanged the ordinary locomotive for a monster one of great power; it looked like two locomotives placed end to end with a tender between them, and was spe-



THE "PORTALES," OR COVERED WALKS.

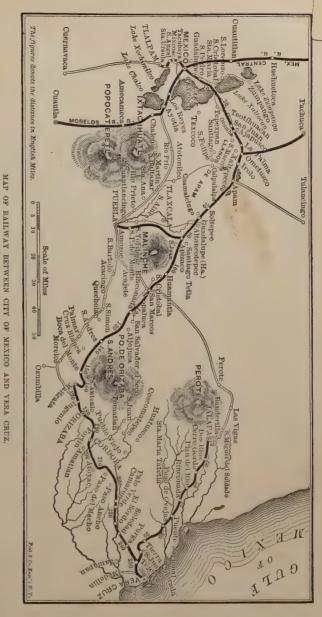
cially built to take the trains over the extraordinary grades on this part of the road. High speed was out of the question, or at all events dangerous, and in descending the slope the train moved not faster than fifteen miles an hour. The schedule time of the ascent is twelve miles an hour, and the Brobdingnagian locomotive is taxed to the utmost of its ability.

Frank learned from one of the officials of the road that there are no fewer than 148 bridges between Vera Cruz and Mexico, and on the branch to Puebla. These bridges are of various lengths, the longest being the Puente de Soledad, which measures

742 feet. The longest of the tunnels is 350 feet, and there are fifteen tunnels in all.

"Nowhere else in the world," wrote Frank, "have we seen finer engineering work than on this railway. It reminded us of the railway from

Bombay to Poonah in India, the line from Colombo to Kandy in Ceylon, and the Saint Gothard and Semmering railways in the Alps. We looked down from dizzy heights where the train would have been ground to atoms had it rolled from the track into the abysses below; we crept along the edges of precipices. or in niches cut in perpendicular walls of rock; we crossed deep chasms upon slender bridges; we darted into tunnels in rapid succession, and swept around curves so sharp that it seemed as though the brakeman on the rear of the train might have shaken hands with the engine-driver. looked into beautiful Valley of Maltrata, which lay spread far below us,



a gem of floral and arboreal beauty among the rugged hills; and we wound and turned among the sinuosities of the track so that our locomotive faced to all points of the compass a dozen times over in a single hour. In a direct distance of two and a half miles, as the bird flies, the railway goes twenty miles; looking down, we saw the track far beneath our level, and looking up we could trace its zigzags along the slopes and precipices. It was the railway passage of the Alps, the Caucasus, the Sierra Nevadas, the Indian Ghauts, and the Blue Mountains of Australia all in one.

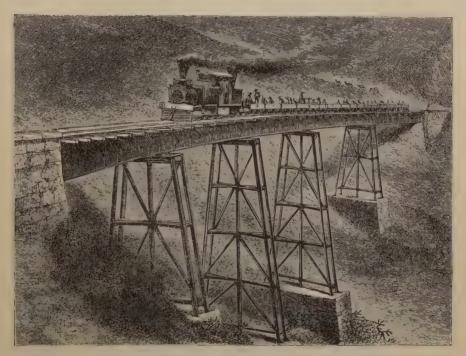
"We stopped a few minutes at the station of Maltrata, which is on an artificial platform that was built up from the slope; it was originally intended as a passing-point for the up and down trains, and for several years after the completion of the line the daily trains each way met at Maltrata. From this point onward the descent was as rapid as before; the locomotive held the train back instead of pulling it, and the brakes kept up a continual grinding against the wheels. We shuddered to think what would have been the result if the brakes had given way and the locomotive failed to restrain us. But in such an event our agony would have been brief, as the whole business would have been ended in a few minutes. They told us that once when a freight train was climbing the mountain two of the rear wagons became detached and started down the slope. Fortunately there was no one on these wagons to lose his life; they jumped the track at one of the curves, and were dashed a thousand feet or more down a steep hill-side into a rocky valley.

"A little distance below Maltrata we skirted one side of the Barranca del Infernillo, a great chasm which made our heads swim as we looked into it. Twelve miles from Maltrata we reached Orizaba, where we had arranged to spend a day, and therefore we left the train as it drew up at the station.

"We observed a change in the vegetation as we descended the slope; we had left the tierra fria behind us, and were now in the tierra templada, or temperate region. The maguey and cactus gave way to darker and richer verdure, which was certainly far more pleasing to the eye than the scanty vegetation of the great plateau. Orizaba is 4000 feet above sea-level, 181 miles from the capital of the republic, and eighty-two from Vera Cruz. It has 20,000 inhabitants, and is a favorite resort of the people of Vera Cruz in the hot and sickly season.

"We expected to have a fine view of the peak of Orizaba from the town of the same name; but in this we were disappointed, as there is no part of the great volcano visible from here, except a thin strip of white over the top of a nearer and lower mountain; even this strip cannot be seen from all parts of the town, but only by climbing to the roof of the hotel or the tower of one of the churches.

"Doctor Bronson asked if we wished to ascend the peak of Orizaba; we gave a prompt negative to his question, partly for the reason that his plans would not permit us to stay here long enough, and partly because the sensation was pretty well exhausted at Popocatepetl. The ascent is quite as difficult as that of Old Popo; Orizaba is a beautiful peak, shaped like a sugar-loaf, and wearing constantly a mantle of purest snow upon its regular and beautiful cone. According to Humboldt, it is 17,378 feet high; a party of American officers ascended it in 1848; three years later

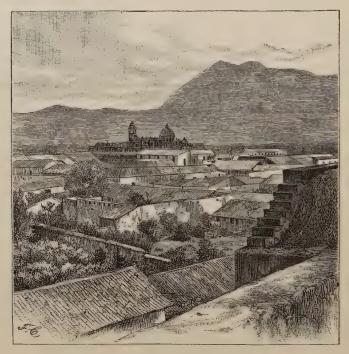


DOUBLE-ENDER LOCOMOTIVE ON MEXICAN RAILWAY.

a Frenchman named Doignon followed their example, and found the flagstaff they left there, with the torn fragments of the American flag which marked their visit.

"There was a town here at the time of the Conquest, and Cortez left a small garrison to hold it when he pushed on to Mexico. It has an agreeable climate, the frequent rains and the mists from the Gulf keeping it well moistened, so that the trees, plants, and green things generally are in a high state of luxuriance. Coffee and tobacco are grown here in large quantities. The town has quite a manufacturing industry, and contains the repair and construction shops of the railway company. We greatly enjoyed a stroll through the streets, which seemed rather dull and sleepy

after those of the capital. Most of the houses are covered with red tiles, which give the city a very picturesque appearance when it is looked upon from the heights surrounding it. Like all old towns of Mexico, it has an abundant supply of churches, and the inhabitants are mostly of the Catholic faith. Not many years ago it was unsafe for a Protestant woman to



VIEW OF ORIZABA.

appear on the streets wearing a hat or bonnet of foreign make; she was liable to be pelted with mud and stones, and her life was by no means out of danger. A milder feeling prevails at present, and the old bigotry is steadily passing away.

"We made a pleasant excursion in the environs of the city, which are very attractive, owing to the luxuriance of the vegetation. Fields of coffee, tobacco, sugar-cane, oranges, and bananas alternate with each other and show the mildness of the climate of Orizaba; some of the plantations are of great extent, and we received many invitations to make a leisurely visit and spend whatever time we liked in their examination.

"One of the sights of the place which we were told not to omit were the falls of the Rincon Grande, about three miles from the city. We did not omit the falls, and will always hold them in pleasant recollection. The Rio de Agua Blanco, which supplies the water for the falls, is a deep and swift stream coming from the mountains to the eastward of Orizaba. Much of its course is through a deep canon; but where the falls begin, a part of the river flows along the surface of the mesa which forms one side of the ravine, and breaks over the side to join the main stream below.



THE RIVER AT ORIZABA.

"The fall is perhaps fifty feet from top to bottom, and a cloud of mist rises like that from Niagara or Montmorency. Both sides of the fall are bordered with a luxuriance of tropical verdure, rendered especially luxuriant by the moisture from the plunging waters. The trees are covered with bunches of Spanish moss, some of them several feet in length,

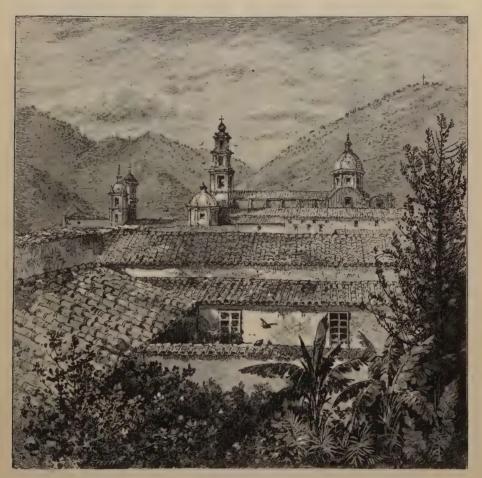
and by numerous parasitical plants, nearly all gaudy with flowers. Some of the trees are so completely in the grasp of the parasites that hardly anything of the original trunk or limbs can be seen. They showed us one tree that had been killed by the parasites; the wood had decayed and crumbled, and the vines were so thick where it had stood that they remained erect as though unaware that their former support had passed away.

"We saw the falls from above and also from below; and while both views were interesting, each had an especial beauty of its own. The shrubbery was so dense that we could walk only in the paths that had been cut for the purpose; and the growth of vegetation is so rapid that these paths require to be trimmed out several times a year. There is no possibility of straying from the path, for the simple reason that it is impossible to proceed in the dense undergrowth except by the aid of a machete. Though at an elevation of 4000 feet above the sea, Orizaba has a tropical climate; its location places it in the tierra templada, but its temperature and characteristics would seem to include it in the tierra caliente. And not only its temperature but its mosquitoes give it a tropical character, as they are of the kind with which the traveller in equatorial regions has a disagreeable familiarity.

"There's a pretty river flowing through Orizaba, and it is useful to the inhabitants in many ways. When we saw it there was not much water in its bed, but they tell us that at some periods it is a rushing torrent of great force and volume. It turns several mills, and is the resort of the women whose duty it is to cleanse the soiled linen of the rest of the inhabitants. Laundry-work here is about as it is in the rest of Mexico, and the rough handling of shirts and other garments by the lavanderas converts them into rags in a very short time. This is good for the cotton-factories of Orizaba, which turn out a fair quality of goods, but are said to be unprofitable for their owners. We have better reports of the flouring-mills here, and also of a paper-mill which was established by an American several years ago. As the Mexicans become better educated the demand for paper is likely to increase; at present it does not take a large number of mills to supply their wants in this respect.

"The people of this city are less eager to point out the hill of El Borrego than are the Pueblans to indicate the scene of the battle of Cinco de Mayo. The latter was a Mexican victory, while the battle of Borrego was a disastrous defeat. Four or five thousand Mexicans were surprised and put to flight by a few hundred French troops. The French say there were not over one hundred in the attacking party. It was a

night surprise, and the French had all the advantages of a nocturnal assault. In justice to the Mexicans it should be added that the assailants were old soldiers, while the surprised army was composed of raw recruits, who are proverbially easy to throw into a panic, especially in the darkness. The same troops made a good record for themselves later in the war.



HILL OF EL BORREGO.

From Orizaba our friends continued their railway journey into the tierra caliente, passing Fortin and Cordoba, the latter the centre of a coffee-growing district of considerable importance. A German gentleman who had a coffee estate near Cordoba was in the carriage with Doctor Bronson and the youths, and gave them some account of the industry;

Fred made notes of his remarks, and afterwards wrote them out in full, with the following result:

"Cordoba is less important now than it has been, owing to the decline in the prices of sugar and coffee; it was founded in the early part of the seventeenth century, and for a long time its industries were the growing of sugar-cane and tobacco. Coffee is a comparatively recent introduction;



ORANGE GROVE IN CORDOBA.

we produce annually in the Cordoba district about 10,000,000 pounds of coffee, and five times as much tobacco, and our coffee and tobacco have a high reputation in the market. Coffee grows in the lower regions of Mexico, and up to elevations of four, or even five, thousand feet; the best site for a plantation is about 3000 feet above sea-level; but it must be remembered that the coffee-tree requires a great deal of moisture, and unless a region is warm and wet it will not answer for a successful experiment."

Frank asked how soon after a plantation was started the trees would begin to bear.

The gentleman replied that he had seen coffee-trees bearing two years after they were planted, and it was very common to gather fair crops from

trees three years old. But they could not be relied upon for a profitable yield until they were four or five years old, and they continue to bear for twenty years. When a plantation is five years old it does not cost much to keep it up, but before that time it is a heavy outlay, with little or slight return.

"You may grow tobacco or bananas between the young coffee-trees when you set them out," he continued, "and the profit from these products will cover a part of your expenses. In fact you should set out enough



COFFEE-DRYING.

bananas or plantains to shelter the young plants, which are liable to be injured by the sun and rain and wind in their infancy. The coffee-tree would grow to a height of twenty or twenty-five feet if we permitted it to do so; we cut it off about six feet from the ground, and thus force the

vigor into the branches; we want it low enough to pick from without too much reaching or climbing, and this would not be the case if we allowed the tree to run up as it would naturally."

Then he gave the youths an account of the harvesting of the crop, and its preparation for market, but as this has already been described elsewhere * Fred did not make a record of it. The culture of coffee is pretty nearly the same all the world over wherever the plant is grown.

The conversation with the coffee-grower had not prevented our friends from observing the scenery which lies between Orizaba and Cordoba along the line of the railway. They were especially impressed with the engineering which was required for crossing the barranca of Metlac; this barranca is about 200 feet deep, by twice that width, and the first thought of the engineers was to throw a bridge directly across it. A bridge of a single span of 400 feet would be very costly, and piers 200 feet in height to support a lighter structure could not be built without great expense. Consequently the plan was adopted of descending to where the barranca is less wide and high before attempting to span it.

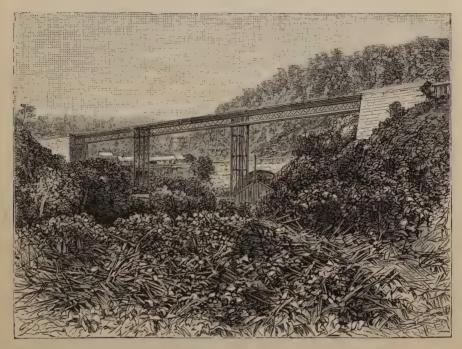
"The bridge," wrote Frank, "is on eight piers of iron, resting on masonry, and it curves in its course from one side of the barranca to the other on a radius of 325 feet. It is 400 feet long and 92 feet high; the railway is cut into the slope of the barranca on each side, and as it nears the bridge it enters a tunnel that curves so as to give the necessary approach. The incline of the railway on each side of the barranca is about three feet in a hundred, and for quite a distance the opposite tracks are almost parallel to each other. The sides of the barranca are covered with a dense growth of tropical trees and underbrush, and the picture it presents is very attractive to the traveller, however disheartening it may have been to the men who planned the railway. Many a railway engineer in Mexico has regretted that barrancas were ever invented, and, on the other hand, has congratulated himself that their number is no larger than it is."

From Cordoba to Paso del Macho the fine scenery continued, the train winding among hills and mountains, disappearing into tunnels, crossing deep valleys upon graceful bridges, and steadily unfolding a panorama of great beauty. Frank made note of the bridge of Attoyac, 330 feet long; the Chiquihuite bridge, 220 feet long; and that of San Alego, three miles before reaching Paso del Macho, which is 318 feet long. In twenty miles there was a descent of 1200 feet, and the scenery steadily assumed more and more a tropical aspect.

^{*} See "The Boy Travellers in Ceylon and India," chap. xix.

But beyond Paso del Macho the country changed again and grew sterile, as though they were once more in the region of the *tierra fria*.

"How is this?" queried Fred. "Here we are coming all the time nearer the sea both in elevation and distance; I thought we should have it a perfect forest of tropical growths all the way to Vera Cruz."



BRIDGE OF ATTOYAC.

"Those who have studied the subject," answered the Doctor, "say that this strip of land along the coast is not touched by the moist vapors which blow inland from the sea. They are attracted by the mountains and highlands, and blow over this region to shed their moisture at a greater elevation."

Evidently the youths were disappointed, but they consoled themselves with the reflection that they were not intending to settle in the country, and therefore it didn't matter much to them what it was. Paso del Macho is about 1500 feet above sea-level, and forty-seven miles from Vera Cruz. The slope of the land from here onward is regular, and no unusual engineering skill was required for the construction of the railway. Fred noted the names of four stations, Camaron, Soledad, Purga, and Tejeria, before



IN TIERRA CALIENTE.

they reached Vera Cruz; but there was nothing attractive about any of those places to render them worthy of further record. Historically, Soledad is memorable as the scene of the convention between generals Prim





and Doblado in 1862, which led to the occupation of the country by the French troops and the invitation to Maximilian to become Emperor of Mexico. Fred asked if there was any monument at Soledad to commemorate the event, and was not at all surprised at receiving a negative answer.

Night had fallen when they rolled into the station at Vera Cruz. Fred watched for the fortifications, of which he had read so much, and was disappointed to learn that they had followed the fate of the walls of most European cities and been levelled out of existence. Modern artillery has rendered all defences of this kind of no value for military purposes, and it is an act of common-sense to destroy them and make practical use of the ground they occupy.

The air was close and warm and offered no inducements for a stroll. By the time our friends had located themselves at the Hotel de Diligencias, which was said to be the principal one, and partaken of a not very appetizing supper, they had more thoughts of bed than of anything else.

Next morning the youths were out in good season for the local sights. The first objects of interest were the zopilotes, or vultures, that act as a street-cleaning bureau, in taking possession of everything edible (from their point of view) in the refuse of the streets. Frank and Fred had seen these birds before on many occasions, but never in such numbers; they are analogous to the turkey-buzzards of the Southern States of North America, and are said to be scientifically of the genus Cathartes. They roosted on the house-tops, and walked through the streets, constantly on the lookout for something in their line. They are protected by law, and are faithful scavengers, working without pay other than board and lodging. They lodge in the open air, and board upon what no other living creature would eat, so that they are inexpensive luxuries. They have never been charged, like street-cleaning bureaus elsewhere, with obtaining money under fraudulent contracts.

"The streets were quiet," wrote Fred, "and we were not surprised to learn that the population of Vera Cruz is under 20,000 and not particularly prosperous, although for a long time nine-tenths of the foreign commerce of the country passed through this port. Since the railways from the United States were opened to the capital the trade of the city has greatly declined. Most of the business is in the hands of foreigners, so that the chief connection a Mexican has with it is to handle the goods as they are transferred from ship to railway or warehouse. The streets are straight and mostly narrow, and the open drains require to be constantly flushed, to keep down the stenches and unhealthy miasmas. In

the sickly season the drains are nightly supplied with disinfectants to keep off that dreaded scourge the *vomito*, or yellow-fever.

"We had heard much of the unhealthiness of Vera Cruz, and particularly of the vomito, which sometimes carries off hundreds of victims in a single week, and makes the road to the cemetery the best travelled one in the whole city. Forty or fifty deaths a day are by no means uncommon; the old inhabitants do not seem to mind it, as they claim that a person who has once had the fever is ever after safe from it. A few years ago Dr. Trowbridge, the American Consul, was removed from the office which he had held for twelve years; his successor arrived during the prevalence of yellow-fever, and died on the thirteenth day of his occupation of his new place. Dr. Trowbridge and his family had the fever lightly when they first arrived, and never afterwards suffered from it.

"They tell us that yellow-fever is most dangerous in summer months, and least so in the winter. It is not advisable for a stranger to come here in the sickly season, and so well is this recognized that the betting men

of Vera Cruz are said to make wagers as to the probable length of life of a visitor from Europe or North America when the vomito is prevalent. A Yankee whom we met upcountry says that when he came to Vera Cruz a polite individual called upon him at the hotel and solicited his patronage, 'which he was sure to need.' He did not feel very comfortable on learning that the polite man was an undertaker, and fled from the city by first train. It used to be said that a life insurance pol-



AFTER THE VOMITO.

icy was vitiated if the holder remained more than twenty-four hours at Vera Cruz.

"Yellow-fever is as dangerous for the Mexican from the table-lands as it is to the North American, and some authorities say that the stranger from over the sea is less liable to it than the Mexican from the tierra fria. It begins in May, is worst in August and September, and then declines to December, when it practically disappears under the influence of the strong 'northers' that blow during the autumn equinox. Were it not for these northers Vera Cruz would be altogether too unhealthy for human habitation.

CHAPTER XXVI.

THE ALAMEDA OF VERA CRUZ.—TROPICAL GROWTHS.—THE PALO DE LECHE AND ITS PECULIARITIES.—A DANGEROUS PLANT.—FOUNTAINS AND WATER-CARRIERS.—GOVERNOR'S PALACE.—BRIEF HISTORY OF VERA CRUZ.—PILLAGED BY PIRATES AND CAPTURED IN WARS.—FORTRESS OF SAN JUAN DE ULLOA.—HORRORS OF A MEXICAN PRISON.—EXCURSION TO JALAPA.—THE NATIONAL BRIDGE.—CERRO GORDO.—GENERAL SCOTT'S VICTORY.—JALAPA.—A CITY OF MISTS.—STAPLE PRODUCTS OF THE REGION.—JALAP AND ITS QUALITIES.—PRETTY WOMEN.—PECULIARITIES OF THE STREETS.—ORIZABA AND PEROTE.—NEW RAILWAY CONNECTIONS.—TAMPICO AND ANTON LIZARDO.—DELAYED BY A NORTHER.—DEPARTURE BY STEAMER.—FAREWELL TO VERA CRUZ.

THE walk of our young friends took them to the Alameda, which proved unusually attractive, as it was filled with tropical plants and trees to which their eyes had not been accustomed in the upland region.



A COFFEE-CARRIER.

They welcomed the palm-trees as old friends; the palm does not flourish in Mexico at a greater elevation than 1500 feet above the level of the sea excepting under peculiarly favorable circumstances. The palms of Vera Cruz are finely developed, but they do not attain the size of those at Medellin, twelve miles down the coast. Medellin is a summer resort of the Veracruzanos; they go there for recreation during the hot season, or at least such of them as cannot afford the longer journey to Orizaba and the mountain regions.

Many of the trees and bushes in the Alameda were bright with flowers. As if there were not enough floral products growing in sight, sev-

eral flower-sellers came around with their wares, which they persistently offered to the visitors. Frank asked for the palo de leche, but the flower

sellers did not have it, though one enterprising dealer endeavored to substitute a common blossom in its place, with the gravest assurance that it was the article sought.

"I haven't heard of that flower before," said Fred. "Why were you asking for it?"

"I read about it last night," was the reply, "and had a curiosity to see what it was like."

"Well, what did you read that was interesting?"

"The description said that the term palo de leche means simply 'milky plant,' and is applied to several plants from whose stems a milky substance exudes. We have the same kind of plant in the North, such as the milk-weed and its kindred. There are many varieties of the palo deleche in Mexico, and they belong to the family of Euphorbia.

"One kind is used by the Indians for fishing; they throw the leaves into the water and the fishes are stupefied and rise to the surface, where they are easily taken before the effect of the narcotic has passed away. The same writer says that if the milk is thrown upon a fire it gives out fumes which produce nausea and severe headaches that often last for several hours. Taken internally, the milk of some of the Euphorbia is a deadly poison; it will produce death or insanity, according to the size and preparation of the dose or the condition of the person to whom it is administered. There is a popular belief among the Mexicans that the insanity of the ex-Empress Carlotta was caused by this poison. While many deny this and point to the fact that she became insane after going to Europe, they admit that the palo de leche is to be feared when in the hands of unscrupulous persons. On the other hand, it is claimed that the Indians can so prepare and use the poison as to regulate the time at which it will cause death or insanity."

"If that is the case," replied Fred, "it is no wonder that the flower-sellers do not deal in what you wanted. Perhaps it would not be altogether safe for a Mexican to ask for it, as he might be suspected of evil designs and bring the police nearer than would be comfortable."

The subject of palo de leche was dropped and the walk continued.

At a fountain they saw quite a group of men and quadrupeds, and a glance showed that the same system of water supply prevails here as in most other cities of Mexico. Water is carried by the aguadores either on their own backs or on those of donkeys. An aguador who possesses a donkey is an aristocrat in his line of business, and looks down upon the poor wretch who is obliged to be his own beast of burden. The mule and donkey are important animals at Vera Cruz, and a good part of the carrying business is in their hands—or on their backs.

Frank and Fred paused to look at the Governor's Palace, an imposing edifice of two stories with a high tower at one corner. There are wide balconies on each of the stories, where the occupants can sit in the shade and enjoy the cool breeze whenever it happens to blow. A drawback to



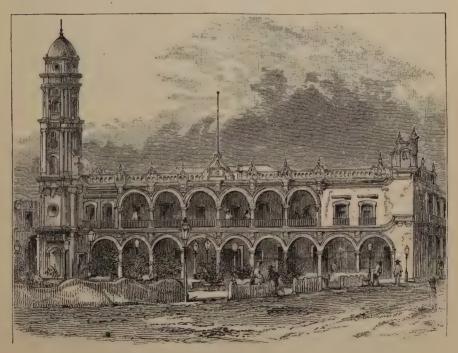
FOUNTAIN AT VERA CRUZ.

sitting there is the presence of the mosquitoes, which fill all the space not taken up by the Governor and his household. Not only do the inhabitants of Vera Cruz maintain a constant warfare with mosquitoes, but they associate intimately with fleas, ticks, and other bodily annoyances. Official station offers no exemption; the insect pests are indiscriminate in their attentions, and light on the brow of the Governor or the general in command of the post just as readily as on that of the humblest peon. If there is any difference it is in favor of the peon, as his tougher skin renders him less inviting to the diminutive assailants.

"Vera Cruz has had an interesting history," wrote Fred in his journal. "It was founded by Cortez in 1519, who gave it the name of Villa Rica de la Vera Cruz (the rich city of the true cross). The original site was a little north of the present one, and altogether the location of the city

has been changed three times. The last change occurred in the year 1600, and brought it to where the first buildings were erected by the Spaniards before Cortez made the formal location of what he intended as the maritime metropolis of the New World.

"The city has suffered in a great many ways. Leaving out the annual visitation of yellow-fever, which we have already mentioned, it has had occasion to mourn the advent of buccaneers, pirates, hostile fleets and armies, and occasional conflagrations and hurricanes. In 1568, and again in 1683, it was sacked by pirates, and many of its inhabitants were killed. In 1618 it was nearly burned to the ground by a fire that broke out during a northerly gale. In 1822 and 1823 it was bombarded by the Spaniards, who held the Castle of San Juan de Ulloa, on the island opposite the city, in the struggle of the Mexicans for independence. In 1838 it was bombarded by the French, and nine years later by the Americans. The latter captured it by coming ashore on the beach some distance below the city and attacking it from the land side, so that the surrender was rendered imperative. Some of the Mexicans complained that General Scott did not 'fight fair,' as he made his attack where they were least prepared for defence. Evi-



THE GOVERNOR'S PALACE.

dently they expected him to march up to the muzzles of their guns instead of going around to the undefended rear of the city as he did.

"The shipping in the harbor was destroyed by a hurricane in 1856, and it has suffered serious damage in other years. President Juarez was besieged here in 1859 by General Miramon; two years later the city was taken by the French and Imperialists, and remained in their hands until 1867, when the death of Maximilian and the collapse of the Empire restored it to Mexican possession."

After breakfast the party arranged to visit the fortress which stands on the island of San Juan, already mentioned. At the mole, or pier, the only one of which Vera Cruz can boast, they hired a boat in which they



ON THE WAY TO THE FORT.

were rowed to the fort; the distance is nearly a mile, and our friends were easily able to understand the unsafe character of the harbor of Vera Cruz. It is little better than an open roadstead; when high winds prevail landing from or embarking upon a steamer is impossible, and during heavy northers steamers sometimes put to sea for safety. There are no docks where vessels can lie; everything must be discharged or received by boats or lighters, and the uncertainties of the weather make the time of a steamer's departure very uncertain. The dangerous character of the harbor is said to cause the insurance companies to increase their rates when Vera Cruz is given as a vessel's destination.

"The fort is a grim-looking place," said Frank; "its walls are thick enough to justify the belief of its builders that it was impregnable. Whatever it may have been in ancient times, it is not of much consequence at

present, and short work would be made of it by modern artillery. No attempt is made to keep it in condition to resist a determined attack, all the cannon which it possesses being of ancient date; many of these cannon would be quite as dangerous to the garrison as to the enemy in case they were discharged. The story goes that it cost so much to build the fort that the King of Spain once called for a telescope, and pointed it at the west.

"'For what is your Majesty looking?' inquired one of his officers of state.

"'I am looking for San Juan de Ulloa,' he answered; 'I have spent so much money on it that I ought to see the fort standing out on the western sky.'

"Our guide pointed out some great rings of copper that were built into the wall of the fortress on the face next to the city. These rings were intended for ships to tie to under protection of the guns, but in the past two hundred years the water has become so shoal that only a small boat can come near enough to make any use of the fastenings. There are large court-yards inside the fort, where a whole regiment could parade, and the casemates are sufficiently capacious to hold a garrison six times as large as the Government keeps here. Parts of the walls are broken down, and no effort is made to keep them in repair. The chief use of the once celebrated fort is as a prison; they told us that about sixty or seventy prisoners were kept there, some of them being sentenced for life. We looked into some of the vacant dungeons, and thought them the most horrible places of imprisonment we had ever seen. They are badly ventilated, very little light can enter them, and the walls are damp and almost dripping with moisture. Escape is out of the question, as the water around the island swarms with sharks, and a prisoner who should attempt to get away by swimming to the shore would be eaten by these monsters of the sea."

An excursion of a pleasanter character was made to the city of Jalapa (ha-la-pa—a as in father); it should be called a journey rather than an excursion, as it consumed no less than three days. Jalapa is seventy-four miles from Vera Cruz and 4000 feet above the sea, and one of the prettiest places in Mexico. Our friends were obliged to rise at a very early hour, as the train starts at 5 A.M.; they went by steam for sixteen miles to Tejeria, and there changed to a tram-car, drawn by mules, for a ride of sixty miles. The old diligence-road between Vera Cruz and the capital passes through Jalapa, but it is not much used since the completion of the railway.

General Scott marched by that road, and the youths were on the watch for *El Puente Nacional*, or the National Bridge, where he was sharply resisted by the Mexican army. It is thirty-five miles from Vera Cruz, and is an immense viaduct, built in the early part of the present century, when the road to the capital was begun. In the happy days of brigandage it



THE NATIONAL BRIDGE,-ROBBING A COACH.

was the favorite spot for stopping coaches and plundering passengers; many a traveller has given up his valuables at this spot, under the potent influence of a pistol in the hands of a Mexican "road-agent."

"Sixty miles by mule-power was a long distance," said Fred, "and we wondered how it was to be accomplished. The mules went along at a good pace, considering that it was an ascending grade; they were urged by the whip in the hands of the driver, and he was certainly not a merciful one, perhaps for the reason that the mules belonged to the railway company and not to himself. Part of our ride was through a comparatively desert region, and we rejoiced that it was early in the morning while the sun was not high and hot. The train was composed of three cars; each car had four mules for its motive power, and the vehicles were divided into first, second, and third class. First class fare is \$6 63; second class, \$4 08; and third class not far from \$2 00. My memorandum for

third class is so blurred that I cannot make the figures out to a certainty. The mules were changed every two hours, and seemed very well satisfied when their terms of service were ended.

"We stopped at Rinconada, where we breakfasted, and changed mules for the second time, the first change having been made at the National Bridge. The second station from Rinconada was Cerro Gordo, where General Scott defeated the Mexicans in 1847. It is a narrow pass bordered by high hills, and connects the lowlands of the coast with the regions of the tierra templada. How an army could get through the pass in the face of anything like determined and intelligent opposition by a force superior in numbers, it is difficult to understand. An English writer who has visited the spot says of it as follows: 'That 10,000 Americans should have been able to get through the mountain passes, and to reach the capital at all, is an astonishing thing; and after that, their successes in the Valley of Mexico follow as a matter of course. They could never have crossed the mountains but for a combination of circumstances.'



SKETCHED AT RINCONADA.

"After passing Cerro Gordo, in which we had no such difficulties as beset General Scott, we found ourselves in a less tropical region than the one behind us. Cornfields were numerous, and so were fields of barley; that we had not left the region of warmth altogether was evident by the

sugar-cane and the coffee-trees that abounded in many places. They continued up to and into Jalapa, whither our mules went at a gallop, and came to a halt about half-past four in the afternoon. Twelve hours for a journey of seventy-four miles, up a slope of 4000 feet, and sixty miles of the distance by mule-power, isn't so bad after all.

"There was a drawback to the interest of the scene in the shape of a cloud of mist in which we were enveloped as we entered the city; but the wind swept it away and we had some beautiful views; then it came on



PART OF JALAPA.

again, to our aggravation, and in fact it kept up a sort of peep-show performance all the time we were there. They told us that a good deal of rain falls at Jalapa, and when there is no rain there is generally a mist of more or less density. We were reminded of Ireland and Scotland, and in more ways than one; the mists that obstruct the view are the glory of Jalapa in keeping everything green, even to our memory of it. It does not rain, nor is the sky obscured all the time, else there would be no ripening of fruit in the gardens; and the gardens of Jalapa are among the finest in the world.

"The great staple of Jalapa is coffee, but there is a large product of

sugar; and as for plantains, bananas, mangoes, and similar fruits, they are to be had in abundance and for little more than the asking. We looked for that old-fashioned drastic medicine, jalap, which takes its name from the city, but were told it is no longer exclusively produced here. Doctor Bronson says the drug was introduced into England from Mexico in 1609, and was in use for 200 years before the plant from which it came was known.

It belongs to the same family as the 'four-o'-clock' of our gardens, and grows wild in the mountains

in the neighborhood of Jalapa. As this city was then the centre of commerce in this article, the name adhered to it, just as the name of Calicut adhered to the cloth called calico, which originally came from that town of India.

"Another staple for which Jalapa is famous is pretty women; but so far as we have been able to observe, it has no monopoly of them against the other cities of Mexico. They have been praised by many travellers, and there is a Mexican saying that 'Las Jalapeñas son muy halagüeñas' ('the women of Jalapa are very charming.') have seen many pretty faces, and if the weather had been uninterruptedly fine perhaps we could have seen more.

"The streets resemble those of Spain more than do any we saw in Mexico, Puebla, or Vera Cruz; they are narrow, crooked, and irregular, and separating



A NARROW STREET.

solid old buildings with thick walls and heavily grated windows. The city has about 15,000 inhabitants, and there is said to have been an Indian town here at the time of Cortez's arrival. The houses cling to the hill-side as though afraid of falling off, and there is a good deal of uphill and downhill in a walk through the streets; in fact it seems to be uphill no matter which way you go. An excellent feature about the streets is their cleanliness.

"Another vegetable product of the region around Jalapa is the vanilla, which was cultivated here long before the Conquest. The Indians had practically a monopoly of it at one time, but its cultivation has spread to other parts of Mexico and Central America, and also to distant countries. The best quality still comes from this part of Mexico, and the Indians show great skill in harvesting and curing the pods. The drying of the pods takes a long time, and if any mistake is made in the process, it greatly injures the value of the product.

"We had a fine view of the peak of Orizaba and the famous mountain of Perote, which, from its shape, is known as the *cofre*, or casket. At the base of this mountain is the town of Perote, which was famous during the Mexican War as the place where some Americans were imprisoned. Doctor Bronson says there was a novel of that time called 'The Prisoner of Perote,' which had a very large circulation.

"Downhill is easier than uphill all the world over, and nowhere more so than on a tram-way. We started from Jalapa at seven in the morning, and went flying down the road, turning curves at a gallop, dashing on as though pursued by a Nemesis or a pack of wolves, and raising clouds of dust wherever the roads were dry. Our hair stood on end half the time—figuratively at least; and I wished the mules could have told us what they thought of such recklessness. We breakfasted again at Rinconada, and at a little past four in the afternoon rolled into Vera Cruz."

Jalapa is to be connected with Puebla and the city of Mexico by the Interoceanic Railway, perhaps before these words appear in print, as a part of the line is already built and work is being pushed on the remainder. As has been shown on previous pages, it is the intention to carry the railway through to the Pacific Ocean by making use of the line already completed from the capital to Morelos and Yautepec. Another Pacific line has been surveyed from Puebla through the State of Oajaca, and a part of the road has been built.

On their return trip from Jalapa to Vera Cruz our friends made the acquaintance of a railway engineer who had been at work upon the line from Tampico westward. He was enthusiastic about the future of

Tampico, and predicted that when the railway had formed its connection with the National and Central lines Vera Cruz would be "out in the cold," as he expressed it. "Tampico has," said he, "a harbor that can be greatly improved by dredging away a part of the bar, which is now dangerous; the town is five miles up a river, and affords the shelter which a ship cannot find at Vera Cruz. With the dredging I mentioned, the port can be used by the same class of vessels that now go to Vera Cruz. Tampico will get all the business when the railway is completed and the line opened to the capital."

Filled with the idea of the importance of Tampico and the ruin that awaited Vera Cruz, before leaving the latter city Frank had a conversation with an advocate of another port of future importance. The new



EXTERIOR OF A CHURCH.

claimant for commercial favors was Anton Lizardo, which lies some distance down the coast and was selected as the starting-point of the Mexican Southern Railway. It is claimed to be in a healthy locality, and to have a fairly good harbor capable of improvement by the use of the dredge and the construction of piers at which vessels may lie. General Grant was the President of the Mexican Southern Railway, and since his death the enterprise has languished, and our friends were unable to learn that it showed any positive signs of activity.

It was Doctor Bronson's intention to leave Vera Cruz on the day following their return from Jalapa, but his plans were rudely upset by a norther, which set in furiously and for two days cut off all communication with the ships in harbor or out of it. Frank and Fred climbed to the top of the highest tower they could find, and watched the waves breaking on the walls, and also on the long line of beach north and south of the city. At times the island of San Juan de Ulloa seemed to be half buried in the spray; the ships rose and fell unpleasantly as they tugged at their anchors, and some of them took the course of prudence and steamed away seaward. Two or three small craft were torn from their moorings and driven ashore; that similar accidents may befall larger vessels was painfully evidenced by an English steamer which lay high and dry on the beach, where she had been wrecked in a norther a few weeks before.

But all things have an end, and so did the gale, which blew itself out after cleansing the city of all miasmatic impurities, and rendering it healthy for a while. The sea went down, and as soon as the steamer on which they were to leave had completed her cargo and was ready for sea, the travelling trio went on board. An hour later they were moving over the dark waters of the Gulf of Mexico, with their faces turned in the direction of the equator.



A TOURIST.

CHAPTER XXVII.

THE COATZACOALCOS RIVER.—ISTHMUS OF TEHUANTEPEC.—TEHUANTEPEC RAILWAY AND SHIP-CANAL.—THE EADS SHIP-RAILWAY.—AN IDEA OF CORTEZ.—PLANS OF CAPTAIN EADS.—A RAILWAY-CARRIAGE WITH 1200 WHEELS.—SHIPS CARRIED IN TANKS.—ENGINEERING AND OTHER FEATURES OF THE SHIP-RAILWAY.—MAHOGANY TRADE.—FIFTEEN THOUSAND DOLLARS FOR THREE LOGS.—FRONTERA AND TABASCO.—RUINS OF PALENQUE.—LORILLARD CITY.—EXPLORATIONS BY STEPHENS AND CHARNAY.—PALACE OF PALENQUE.—TEMPLE OF THE CROSS.—TEMPLE OF LORILLARD.—REMARKABLE IDOL.—A REGION ABOUNDING IN RUINS.—REMAINS OF MITLA.—PILLAR OF DEATH.

THE steamer on which our friends were embarked was a small one engaged in the coasting trade. She drew less than twelve feet of water, and was therefore able to enter the shallow harbors of some of the

Mexican and Central American ports where large vessels cannot go. On the morning after leaving Vera Cruz she was off the mouth of the Coatzacoalcos River, and a little after sunrise she crossed the bar and steamed slowly against the current of that tropical stream.

Dense forests, broken here and there by clearings, covered the banks of the river, and reminded our young friends of the Menam River, in Siam, or the Me-Kong, in Cambodia. Thirty miles from the mouth of the river brought them to Minatitlan, a tumble-down village or town with a few hundred inhabitants, who are chiefly engaged in doing nothing, if one is to judge by appearances. The business of Minatitlan is not large, and



ON THE RIVER'S BANK.

is chiefly connected with trade in mahogany and other tropical woods.

The river and the town have an international importance, as they are



A STEAMSHIP ON A PLATFORM CAR.

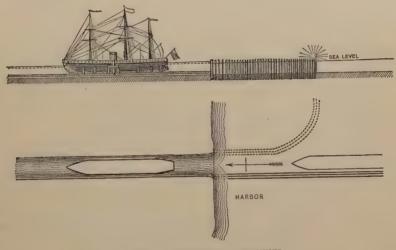
on the Isthmus of Tehuantepec, which has long been under consideration as the route for a canal to connect the Atlantic with the Pacific. The width of the isthmus from ocean to ocean is 143 miles, but by making use of the rivers on either side the length of a canal would be little, if any, more than 100 miles. The route has been surveyed at different times, notably in 1870, by Captain Shufeldt of the United States Navy, who declared that there was no insurmountable obstacle to the construction of a ship-canal.

Recently the Mexican Government has given to an English company a concession for a railway across the Isthmus of Tehuantepec. One of the surveyors of this company was a passenger on the steamer with our friends, who fell into conversation with him during dinner, and learned many things of interest. The engineer told them that work was to begin immediately on the railway, and they hoped to have it completed by the end of 1889.

Doctor Bronson recalled the fact that in 1842 a concession was granted

to Don José de Garay for the Tehuantepec Railway, but nothing was accomplished, for the simple reason that the money for the work could not be obtained. As soon as the Garay concession fell through, the United States Government offered \$15,000,000 for the right of way across the Isthmus of Tehuantepec, but the offer was declined. During the California gold excitement a Tehuantepec transit line was established. Steamers ran between the isthmus and San Francisco on the Pacific side, and to New York and New Orleans on the Atlantic. Passengers were carried across the neck of land in stage-coaches. The enterprise proved unprofitable, and was abandoned after a few years.

What interested Frank and Fred more than anything else at this point was the suggestion that huge ships might yet be transported across the isthmus, not by canal but on a railway. Their new-found friend told



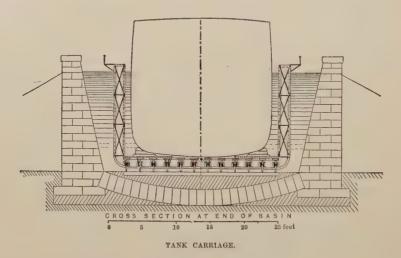
PLANE AND ELEVATION OF TERMINUS.

them about the project of Capt. James B. Eads, an enterprising American engineer, and referred them for further information to an article in *Harper's Magazine* for November, 1881. With their usual good-fortune they found a copy of the magazine in the hands of the purser of the steamer. Aided by it and the points given them by the engineer, together with some from Doctor Bronson, they wrote the following while the steamer was continuing her voyage from Minatitlan.

"Any one who thinks the idea of a ship-railway here is a new one is grievously mistaken. It originated with no less a personage than the conqueror Cortez, who visited the isthmus, examined the river Coatzacoalcos,

made soundings, and walked across from ocean to ocean, with a view to establishing a portage by which ships could be carried overland for the commerce between Spain and the far east of Asia.

"Cortez reported favorably upon the enterprise, and suggested a broad road carefully graded by which ships could be transported on rollers or wheels from one ocean to the other. It must be remembered that the



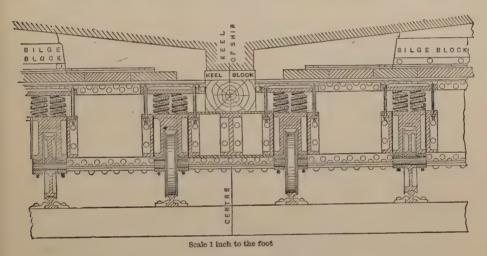
ships of his day were much smaller than those of the present time, and their transportation a hundred miles overland would not have been a very difficult matter.

"Somehow the Spanish Government did not favor the proposal sufficiently to authorize the expenditure of the necessary cash. The matter slumbered until 1814, nearly 300 years, when the Government consented to the undertaking, but the revolution then going on prevented anything like actual work on the road. The Garay Railway concession in 1842 was the next project. Three canal concessions have since been made to Mexicans and one to Americans; then came the concession to Captain Eads for a ship-railway, and last of all is the concession already mentioned for an ordinary railway to be built by an English company.

"We will remark here that if concessions would build railways Mexico would have been gridironed with them long before this. It is probable that two or three hundred concessions have been granted in the last ten years, and nine-tenths of them are not likely to go beyond the 'permission to build' which the concession grants.

"The idea of Captain Eads was that wherever a canal can be built

to float a ship a railway may be built to carry one. His theory was laughed at by a great many people, but has been accepted by eminent engineers all over the world who have carefully studied his plans. Like every novel scheme, it has met with much opposition, and many objections have been made to it; but they are chiefly by men whose minds are not scientific. It should be borne in mind that the steam-railway, the steam-boat, the ocean steamship, the telegraph, in fact every great enterprise of modern times, has encountered similar opposition, and in some instances has had no support even from scientific minds. Doctor Bronson says there is fair reason to believe that the ship-railway of Captain Eads will be in operation before the end of the century, and vessels of five or six thousand tons will safely pass over dry land from one ocean to the other.



SECTION OF PART OF CRADLE CARRIAGE.

"Captain Eads proposed to build a line of twelve rails, with a grade of not more than fifty feet to the mile at each end. The line descends into the water, to enable ships to be placed in the cradles in which they are to rest during the transit. The grade of one foot in a hundred, or fifty-two and eight-tenths feet to the mile, would carry the line to a depth of thirty feet in a length of 3000 feet. Here the ship, in a landlocked basin, will be floated to a cradle and made fast. The cradle and ship together will be hauled out by means of stationary engines on land, just as ships are hauled upon marine-railways or dry-docks.

"The cradle is an enormous platform car 300 feet long, or it may be a tank of the same length in which a ship can float. In either case it will

be the width of twelve rails spaced to standard gauge (4 feet $8\frac{1}{2}$ inches), and will have 100 wheels on each rail, or 1200 wheels in all. This will give a pressure of five tons to each wheel, supposing the cradle to be carrying a ship of 4000 tons, which is no more than the burden of the wheel of an ordinary freight car with its load. Thus is answered the objection which has been made, and very naturally, about the enormous pressure upon the cars and road-bed. Taking the area into consideration, the pressure is no greater than that upon an ordinary railway when a loaded train goes over it.

"The cradle will be drawn along the railway by four locomotives, each of them as powerful as five ordinary freight locomotives of the Pennsylvania or other great railway company. Of course there can be no curves on the railway, as the cradle can be no more flexible than the ship. All bends on the line will be made at turn-tables; but the nature of the country is such that only two of these, or possibly three, will be needed."

The youths paused at this point to look at the drawings which showed the design for supporting the cradle on its carriage. Fred observed that the axle of each wheel was independent, and that there was a pair of springs above each and every wheel. He asked Doctor Bronson why it was so many springs were needed, as it was evident that with twelve hundred wheels there would be twenty-four hundred springs.

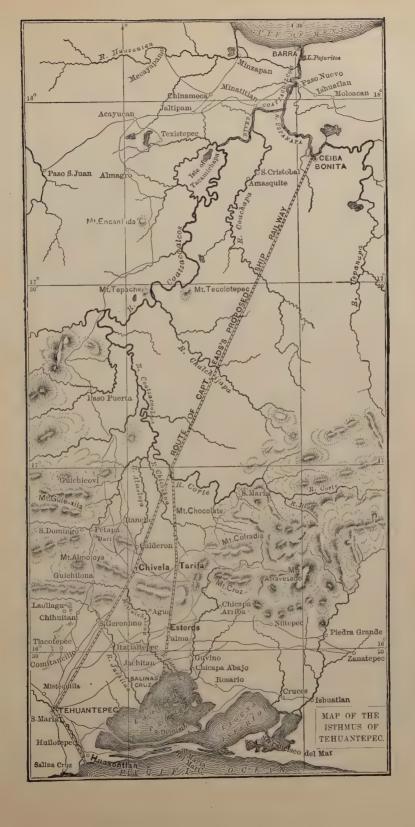
"I suppose," was the reply, "that it is to facilitate the change of the carriage from a level to a grade, or vice versâ. In going from an up grade to a level there would be a greater pressure at the ends than in the centre, and the same would be the case in going from a level to a down grade. The springs are intended to regulate this; the railway is intended to form an upward incline from each end towards the centre, where there will be a level of several miles."

Frank asked how fast the train, if train it could be called, was expected to run in making the transit of the isthmus with a ship.

"From eight to ten miles an hour," replied the Doctor. "Captain Eads proposed not to keep a vessel more than twelve hours out of the water, and he thought it quite likely the time might be reduced to ten hours."

Then the youths looked at the map and studied out the course of the proposed ship-railway. Frank slowly dictated while Fred jotted down the names of the places mentioned.

"The bar at the mouth of the river must be dredged out so as to admit ships, which will then find plenty of water up to a point called Ceiba Bonita, on the Uspanapan River, which runs into the Coatzacoalcos just below



Minatitlan. There the ship-railway will begin, and it runs in a straight line to the mountains, where there is a depression only 650 feet high. In fact there are two of these depressions, and either of them may be taken.



MAHOGANY HUNTERS.

These are the passes of Chivela and Tarifa. By the former the railway may run to the town of Tehuantepec, and there make a bend by turntable, and continue to the Pacific Ocean; and by the latter pass it may go to Salinas Cruz, which lies on a lagoon, where a harbor must be dredged out."

"And how much will be the cost of this great work?" one of the youths asked.

"I believe the estimate is seventy-five millions of dollars," was the reply, "including the construction of the railway and its equipment with cradles, tanks, locomotives, and everything else needed for operating the line.

"The saving of distance," continued Doctor Bronson, "for a ship going by the Isthmus of Tehuantepec instead of Cape Horn from New York to Hong-Kong is 8245 miles, and from New Orleans to Hong-Kong 9900 miles. The route from England to the ports of Eastern Asia and Australia is also considerably shortened, and there can be little doubt that the completion and successful operation of the ship-railway would be of great advantage to the commerce of the world."

While at Minatitlan the youths saw a vessel loading with mahogany logs for a port in Europe, and they naturally made inquiries about the wood and where it was procured. They learned that it grew on marshy



TRAVELLING IN TABASCO.

ground in the valleys of rivers in Southern Mexico, Honduras, and Central America generally, and also in the West India Islands, tropical South America, and tropical Asia and Africa.

"It is," said their informant, "the most valuable of all the tropical trees, as you will see when I tell you the prices at which it is sold. Logs fifteen feet long and thirty-eight inches square have been sold for two or three thousand dollars each, and in one instance three logs from one tree brought \$15,000."

Frank asked if that was the regular price for the timber or only an

exceptional one.

"In these cases it was exceptional," was the reply, "the value depending upon the peculiar 'curl,' or grain of the wood. But the work of getting out the logs is so great that unless high prices were paid for all mahogany the business would be abandoned. The mahogany-cutters search through the forest for trees, and then they build roads, often for many miles, to haul the logs to the banks of the rivers. The logs are usually from ten to sixteen feet long and two to three feet square; the length of the logs will depend upon that of the tree and the number of cuttings that can be made to the best advantage. The largest log I ever heard of was cut in Honduras; it was seventeen feet long, fifty-seven inches broad, and sixty-four inches deep; it weighed more than fifteen tons, and was cut into 5421 feet of inch plank. Reduced to veneering one-sixteenth of an inch thick, it would have covered very nearly two acres."

Fred observed that the logs were square instead of round, and asked why it was.

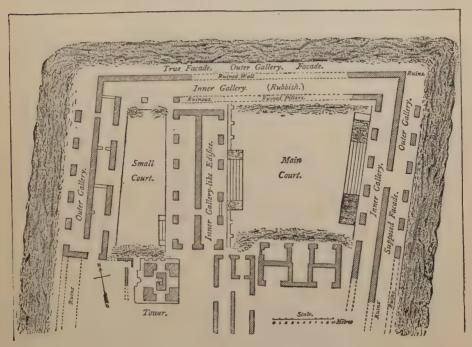
"There are two reasons for it," was the reply. "The first object is to reduce the weight as much as possible without injury to the wood, and hence the workmen 'square' the logs roughly as soon as they have been divided into lengths. In the second place, the squaring makes them less liable to roll while upon the rough carts by which they are brought through the forests to the rivers, where they are floated down to the places of shipment. The cutting and hauling are done in the dry season, and the work is timed so that it will be completed when the rainy season sets in. Then the rivers swell and the logs are floated; the system is in many respects analogous to lumbering operations in Maine, Minnesota, and other Northern States of America."

After leaving the Coatzacoalcos River, the steamer headed for Frontera, at the mouth of the river Tabasco, but she did not remain long enough for our friends to go on shore, much to the disappointment of Frank and Fred. They were consoled by a fellow-passenger, who told them that the place was hot and unhealthy, and they would run the risk of taking the fever by passing no more than a few hours on land. Another consideration was that the anchorage was six miles from town, and the fare to the shore was four dollars each way—at least that was what the boatmen demanded.

The Tabasco is a river of considerable size, and navigable for quite a distance inland by small steamers. The capital of the State of Tabasco is San Juan Bautista, about fifty miles from the mouth of the river. By

continuing up the stream the traveller can reach a point whence an overland journey will bring him to the ruins of Palenque, one of the archæological wonders of the western continent.

"We didn't care much for the modern part of Tabasco," said Fred, as it would not have been much unlike what we have already seen, but we did want ever and ever so much to go to Palenque. We have read the descriptions of the ruins by Stephens, who visited them in 1839–40,



PLAN OF PART OF THE PALACE AT PALENQUE.

and by Charnay, who went there in 1882. Both gentlemen agree that they are wonderful to look at, even from the point of view of an ordinary traveller.

"They tell us of a ruined palace 238 feet long by 180 deep, and standing on a mound or platform of earth and stone forty feet high and measuring about 100 feet each way more than the palace does. The palace was built of stone laid in a mortar of lime and sand, and seems to have been covered with stucco in various colors. There is a great quantity of bass-reliefs and hieroglyphics; many of these have been injured by time and the Indians, but on the other hand a great number are still

perfect. Nobody can yet tell the exact extent of the city as it was in the time of its glory. A dense forest has grown over the spot, and it would take an army of men to remove the huge trees and clear away the ground.

"You may ask how old the city is and when it was abandoned. That, as well as the city's extent, is a conundrum. Some writers think it was inhabited as late as the time of the Conquest. This is the theory of



MEDALLION BASS-RELIEF.

M. Charnay; and a traveller who preceded him in 1774 says he discovered 'eighteen palaces, twenty great buildings, and 167 houses in a single week,' which is more than can be found by one person in the same time nowadays. According to the account of the expedition of Cortez to Honduras, he must have passed quite close to the site of Palenque, but his faithful chronicler, Bernal Diaz, makes no mention of the city, nor is it referred to in the conqueror's reports to the King.

"M. Charnay made explorations through this region, and to the southeast of Palenque he visited the ruins of another city; this he named in honor of Mr. Pierre Lorillard, of New York, who had defrayed the expenses of the expedition. He had hoped to be the first explorer of these ruins; but on reaching the spot he found himself preceded by an enterprising Englishman, Mr. Alfred Maudsley, of London. The latter generously proposed that the Frenchman should name the town, call himself the discoverer, in fact do anything he pleased, since he (Maudsley) was only an amateur travelling for pleasure, and not for scientific purposes. Char-

nay accepted the offer in so far as the naming of the place was concerned, but he could hardly call himself the discoverer, as it had been previously visited by residents of Tenosiqué, the nearest modern town of any consequence, and one of them had described it in writing and by drawings.

"One of the interesting objects found at Lorillard was an idol that has a remarkable resemblance to the idols in the Buddhist temples of

Asiatic countries. It was in a temple that was greatly ruined. There are fifteen or twenty temples and other buildings at Lorillard, and it is quite possible that others may be found by a careful examination of the forest. M. Charnay pronounced the idol one of the finest ever discovered in tropical America. It represented a figure sitting in the attitude of Buddha, with the hands resting on the knees; the head was surmounted by an enormous head-dress intended to represent a cluster of feathers surrounding and rising above a medallion and diadem. The garments worn by the bust are a sort of cape covered with pearls and having a medallion in front and on each side. There are heavy bracelets on the arms, and there is a girdle



IDOL IN TEMPLE AT LORILLARD CITY.

around the waist with a medallion similar to that which decorates the cape.

"The sacred character of the statue or idol is indicated by the circumstance that all around it, and in fact all through the temple, were many bowls of coarse clay, which were used for burning incense. Some of the

bowls contained copal, which was the substance used for incense, and the walls of the temples were black with the smoke from the offerings.

"A singular feature about these temples, and also those at Palenque, is the presence of the cross among the bass-reliefs and hieroglyphics. This



THE CROSS OF PALENQUE.

circumstance has given rise to the supposition that the temples were built long after the Conquest, and that the natives had been converted to Christianity; but the most careful students of the subject say that the cross was a symbol of the Toltecs long before Columbus or Cortez was born. The famous sculpture at Palenque was in the temple of the same name, and represents a Roman cross on the top of which a bird is perched; a man at

one side presents an offering to the bird, and the spaces beneath the arms of the cross are covered with hieroglyphics that have not been deciphered.

"The whole sculpture on which this cross appears was upon three stones placed side by side in the wall of the temple. One of them is still there, the second is in the Smithsonian Institution at Washington, and the third, which is the central one with the cross upon it, has been taken to Las Playas, in the State of Tabasco.

"The whole country is said to abound with ruins that have never been seen by white men, and some of which are not even known to the Indians of to-day. It is certain that this region once contained a dense and highly civilized population, and the ruins that have been explored show that they had a good knowledge of the principles of architecture and sculpture.

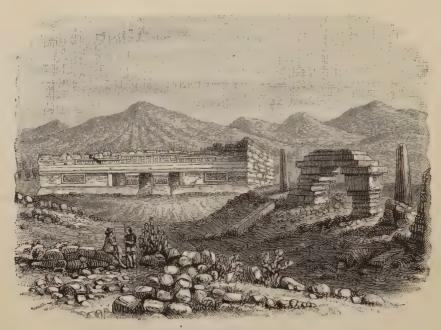


GRAND HALL AT MITLA.

Exactly who they were has not been revealed, but explorers and scientists are slowly penetrating the secret, and in course of time the history of these primitive people will be given to the world.

"The cities at Palenque and Lorillard were of Toltec origin; the Toltecs were in Mexico previous to the Aztecs, as we have already mentioned, and it is fair to presume that these cities now in crumbling ruins were older than the Tenochtitlan which Cortez captured from the Aztecs. In the State of Oajaca are the ruins of Mitla, an Aztec city, and they are extensive enough to show that a powerful people once lived there.

"The ruins at Mitla are in two groups, each consisting of four build-



EXTERIOR OF TEMPLE AT MITLA.

ings fronting on a square like the plaza of modern times. There is a hall with six columns of stone in the centre, each column being about twelve feet high, and tapering towards the top like a slender sugar-loaf. It is supposed to have formed a central support for the roof that rested at its edges upon the walls, which are parallel to each other. The walls are built of rough stones laid with cement, and they seem to have been covered originally with stucco.

"On the outside the buildings at Mitla were built up with blocks of hewn stone, and covered with a mosaic laid in stucco, and composed of stone of different colors. The doors and windows are square, and have lintels of hewn stone, and altogether the buildings had quite a resemblance to those of the ancient Egyptians.

"There is a tradition at Mitla that vast amounts of treasure are concealed in the temples and surrounding grounds, and the earth has been repeatedly dug over in the search for these things. Under one of the temples is a chamber, in which there is an upright column of stone, called the 'Pillar of Death.' The natives believe that any Indian who clasps his arms around this pillar will die in a short time, but white men are not in any such danger."

CHAPTER XXVIII.

"THE MYSTERIOUS CITY;" STORIES AND RUMORS CONCERNING IT.—ACCOUNTS OF STEPHENS AND MORELET.—FATE OF TWO YOUNG AMERICANS.—DON PEDRO VELASQUEZ.—CARMEN AND CAMPEACHY.—UNDERGROUND CAVES.—HOW LOGWOOD IS GATHERED; ITS COMMERCIAL IMPORTANCE.—THE QUEZAL AND ITS WONDERFUL PLUMAGE.—SNAKES AND SNAKE STORIES.—TRAVELLERS' TALES.—PROGRESO AND SISAL.—HOW THE YUCATAN RAILWAY WAS BUILT.—AGAVE SISALANA.—DISCOVERY AND CONQUEST OF YUCATAN.—A FEROCIOUS POPULATION.—REBELLIOUS INDIANS IN YUCATAN; HOW THEY TREAT VISITORS.—TOWNS AND VILLAGES DEPOPULATED.

WHILE considering the accounts of the ruins of ancient cities in Mexico and the countries bordering it, our young friends came upon allusions to a "mysterious city," somewhere in the unexplored region of tropical forests lying to the southward. Their curiosity was excited, and they wondered if such a city really existed.



IN THE FOREST.

They found that two explorers, Stephens and Morelet, believed in its existence, and though they tried hard to reach it were unable to do so. Stephens learned of it from the *cura* of Quiche, a native town of Guate-

mala, who claimed to have looked upon the city from the wall of rock surrounding the valley where it stands. He had heard of it many years before at the village of Chajul. He was then young, and had climbed to the top of the ridge which the Indians indicated, and from his elevated stand-point looked down upon the plain and the white walls and towers of



JOHN L. STEPHENS.

the city glistening in the sun. It covered a large area, and its people were advanced in the arts and capable of making a vigorous defence against all intruders.

"Wouldn't that be an expedition worth making?" said Frank to Fred, after they had read the account in Mr. Stephens's book. "Just think of it! to be able to discover the mysterious city which no white man has ever returned from!"

"Yes, that's the tradition concerning it," was the reply. "Several white men have gone there, but no one has ever returned from it to tell the story of what he saw."

"Writers on the subject are not very encouraging," said Frank, "as

they assert that the Indians in this mysterious city murder every white man who comes within their boundaries. Not even the Spanish padres are permitted to enter, and they are usually able to go where no other white man dare try to penetrate."

Frank read and reread all the attainable descriptions of the mysterious city, and his imagination was fired almost to the degree of explosion. "The inhabitants understand," he remarked, "that a white race has conquered the rest of the country, but they are determined not to be conquered. They have no coin or other circulating medium, no horses, cattle, mules, or other domestic animals except fowls, and they keep these underground so that the crowing of the cocks will not be heard."

Probably Frank's belief was largely influenced by the circumstance that such a careful explorer as Stephens accepted the story as true; in speaking of it he uses these words: "I conceive it to be not impossible that in this secluded region may exist, at this day, unknown to white men,

a living, aboriginal city, occupied by relics of the ancient race, who still worship in the temples of their fathers."

In writing an introduction to the narrative of the travels of Arthur Morelet, who spent several years in that country, and evidently believed in the existence of the mysterious city, Mr. E. G. Squier says as follows:

"There is a region lying between Chiapas, Tabasco, Yucatan, and the Republic of Guatemala, and comprising a considerable portion of each of those States, which, if not entirely blank, is only conjecturally filled up with mountains, lakes, and rivers. It is almost as unknown as the interior of Africa itself. . . . Within its depths, far off on some unknown tributary



SEEKING THE MYSTERIOUS CITY

of the Usumasinta, the popular tradition of Guatemala and Chiapas places the great aboriginal city, with its white walls shining like silver in the sun, which the cura of Quiche affirmed he had seen with his own eyes from the tops of the mountains of Quezaltenango."

A Guatemalan gentleman, Don Pedro Velasquez, claims to have accompanied two young gentlemen of Baltimore, who succeeded in reaching the mysterious city a few years after the account of Stephens was published. Having once reached the city they were not harmed; but when they attempted to escape they were seized, and one of them was sacrificed on the altar of the Sun, after the manner of the Aztec sacrifices already described. The other made his escape, but was so badly wounded that he died in the forest. Don Pedro and a few Indians who accompanied the young gentlemen managed to get away with their lives, but only by running great risks. The account he gives of their adventures is not very clear, and it has not secured a prominent place in the history of scientific explorations.

A few years ago an enterprising American naturalist, Mr. F. A. Ober, was on the borders of this unexplored region, and was greatly tempted to venture alone in search of the mysterious city, and particularly to learn about the fauna and flora that abound in its vicinity. It would have been madness for him to have undertaken the journey, and he wisely refrained from doing so; he is still of opinion that the examination of this unknown and unconquered region offers a fine field for the naturalist, and for societies engaged in promoting scientific investigation.

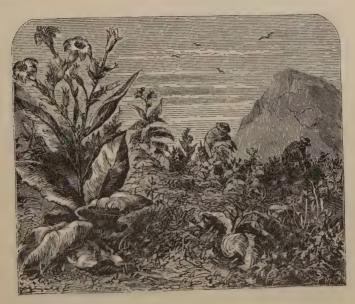
After mature deliberation Frank and Fred concluded that the exploration of this unknown region was not practicable just at that time, but they would keep it in mind, and perhaps might lead an expedition thither at some future day.

Doctor Bronson suggested that in the mean while they could amuse themselves by reading "The Phantom City," a romance based upon the stories told by Stephens and others. He thought that the romance might contain hints which would be useful in case they should fit out their expedition. "At all events," said he, "it is an interesting story, and will well repay perusal."

The steamer made a brief halt at Carmen, an insignificant town on an island on the coast, and then proceeded to Campeachy, where she anchored about five miles from shore. There was quite a ground-swell on the sea, which would have made a journey to the shore somewhat uncomfortable, with the possibility, in case the wind increased, of being detained there until the next steamer happened along. So our friends concluded to ac-

quaint themselves with Campeachy by looking at it from the deck of the vessel; all day they lay there, and long before the sun went down the youths were impatient to be on their way.

As they looked upon the white walls of the city glistening in the sun, it was no great stretch of the imagination for them to believe they were repeating the experience of the cura of Quiche, and gazing from the top of the mountain chain which he claims to have ascended. They learned that Campeachy was once of more importance than it is to-day; it has a



CAMPEACHY TOBACCO.

population of 20,000, and is built of a white limestone that is very abundant in the neighborhood. Its houses are nearly all of but one story in height, and the city is surrounded by walls which were built by the Spaniards when they founded a settlement here.

An interesting feature of Campeachy is the great number of subterranean caves in the hills on which it stands, some of them natural and some artificial. These caves were made by the Indians long ago; most of them have been explored in search of treasure, of which very little was obtained. Numerous skulls and skeletons were found there, and it is evident that the caves were used as burial-places, and are much like the catacombs of Oriental countries. A few of them have been utilized as cellars by the inhabitants, but only a few; the Indians of to-day have a good many

superstitions concerning the caves, and look with an unfriendly eye upon any one who desecrates them.

A lighter came alongside with some cargo for the steamer, and Frank made a note of what it brought. There were hides of cattle, deer-skins, sugar in bags made of the *pita* plant, bales of that textile product, bees-



THE QUEZAL.

wax, and a considerable quantity of Campeachy cigars. The to-bacco grown in the States of Campeachy and Tabasco is of very good quality, and the cigars are often sold for "Havanas" in foreign markets.

Frank learned that logwood is an important article of trade on this part of the coast, but it is mostly shipped on sailing-vessels, on account of the lower charge for freight. Carmen has a considerable commerce in logwood, which grows so extensively that there is no immediate danger of the exhaustion of the supply, especially as its cultivation has extended to other countries by plant-

ing the seed or transplanting the young trees.

"Logwood is used for dyeing purposes," wrote Frank, after he had informed himself concerning it, "and also in medicine. There is a belief that it is used by wine-makers in coloring claret quite as much as for dyeing cloth or leather. The tree is usually about twenty-five feet high and fifteen inches in diameter. Only the 'heart' of the trunk contains the dyeing substance, and this is the part exported, the outer sap-wood being cut off in the forest as soon as the tree is felled. The logwood-cutters have a hard life, and their business is less profitable of late years, owing to the extensive use of aniline dyes."

A passenger who came on board the steamer at Campeachy had as part of his baggage a cage containing a bird of remarkable plumage. It presented a variety of colors—green, golden, red, and white—and its tail feathers were so long that they seemed out of all proportion to the size of the creature's body. Frank and Fred were immediately attracted to it, and asked what it was.

"It is a quezal, or quetzal," was the reply, "which was at one time the sacred and imperial bird of Mexico. The one you see here is not a fine specimen. Sometimes you find these birds with the tail feathers four feet long; and in ancient times none but the emperors were permitted to wear them. Perhaps you saw the feather cloak of Montezuma in the museum at the capital? Well, the feathers that adorn that cloak came from the quezal, and the bird is so rare that it takes a long time to gather feathers enough to make a single garment.

"The quezal is still regarded with much respect by the Indians of this part of the country and of Central America, but less so than in the days of the Montezumas. As it darts through the forest its feathers flash like



DIFFICULTIES OF TRAVEL IN CAMPEACHY.

a moving rainbow, and remind us of the accounts that Eastern travellers have given of the bird-of-paradise. It is rarely taken alive, and is so shy that the hunter can only approach it with difficulty.

"This region abounds in birds," continued his informant, "and also with less pleasing things to meet—snakes. Some of the serpents are large and others are venomous. It is a fortunate thing for travellers in the forest that the snake seeks safety in flight when he can do so, and does not voluntarily attack man. Birds and small animals are his prey, and he takes them after the same fashion as the serpents of the rest of the world."

Fred asked what was the most dangerous of the serpents of this tropical region.

"The worst I know of," was the reply, "is the vivora de sangre, which causes the blood of man or beast to sweat through the pores of the body until the veins are exhausted and the victim dies in a state of utter weakness. It is literally a case of bleeding to death, though not in the ordinary way of opening the veins."

Then he told of another serpent called the *mica*, or whipping-snake, which when irritated flattens its head upon the ground and seems to fasten it there. Then it lashes on either side with its tail like a whip, and it strikes a blow of wonderful force when its size is considered.

Then followed an extended conversation upon the natural history of Campeachy and the regions bordering it, but the youths did not take further notes, and so we are unable to repeat what was said. Some of the stories of the traveller were impressed on the mind of Frank more on account of their improbability than for any other peculiarity.

He told about serpents thirty feet long that suspended themselves from trees which overhung path-ways, and swooped down upon cattle, sheep, and other animals that came within their reach. Frank asked if human beings were exempt from their attacks, and the stranger replied that those who ate plenty of *chili colorado* with their food were not disturbed, or at any rate the snake would not swallow them, as he wasn't fond of red pepper. He might kill them before finding out the fact, but as soon as he had done so he would respectfully turn aside and seek other game.

Then followed a story about another variety of snake that kills a bird on its nest and then proceeds to coil affectionately about the eggs and hatch them out. When the young birds appear he cares for them tenderly, bringing them food in the daytime, and at night nestling over them to protect their unfeathered bodies from the cold and dampness.

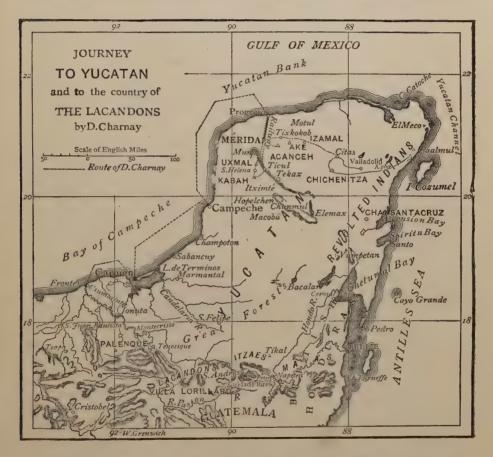
"And I suppose," said Frank, "that when he has reared them to a suitable size he proceeds to eat them up."

As to that the stranger could give no information, and accordingly the youth concluded that the narrative was not based upon personal observation.

From Campeachy the steamer held her course to Progreso, the principal port of Yucatan. That honor formerly belonged to Sisal, but the advantages of Progreso caused it to be preferred, and now it is the seat of commerce. Not that the harbor amounts to much, as the shallow coast prevents vessels of more than a few feet draught from coming anywhere near it. The passengers were landed in a large row-boat that danced very

uneasily upon the waves and disturbed the digestion of some who thus far had borne the movements of the sea without objection. It was a long pull to the shore, but they reached it in safety and resigned themselves to the custom-house officials who were waiting at the landing-place.

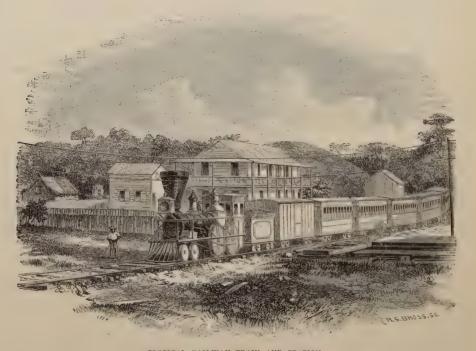
The inspection was not very rigorous, as the passengers were from another Mexican port and not from foreign lands; in fact it was nothing



more than a form, and was quickly over. Then the strangers had a half-hour in which to inspect the town of Progreso; they inspected it and had fifteen minutes to spare. The place is simply a shipping-point, and no-body lives there except those whose business connects them with marine matters. It is surrounded by swamps and is damp and unhealthy. It was desirable to get away from it as soon as possible, as it seemed an excellent spot for incorporating fever-germs into the system. The population is less

than 2000, not including the tenants of the cemetery, which is said to be liberally patronized.

Merida, the capital, is about thirty miles from Progreso, and connected with it by railway. The train rolled slowly along, taking nearly three hours for the journey; but as it has no competition it has no occasion to hurry. Passengers sometimes complain of the snail-like speed, and



TROPICAL RAILWAY TRAIN AND STATION,

are told that they can possibly do better by getting out and walking. Our friends made no complaint, as they realized that even at a pace not exceeding ten miles an hour it was much better than no railway at all. The engine and cars were of American make, and the conductor was a New Yorker who had become so bronzed by the sun as to be readily taken for a Mexican.

"This railway was built like a good many other lines in Mexico," said a passenger on the train who fell into conversation with Doctor Bronson and the youths. "All the material was brought from foreign countries and landed at Progreso; it was then hauled in carts to Merida, and the line was built from Merida towards the sea. The same ideas prevailed as

in the case of the line between Vera Cruz and the city of Mexico; the peace of the country would be endangered if the railway should be constructed from the sea-coast inland.

"The story goes that the contractor received a liberal subsidy from the Government only on condition that he built from Merida, and as he began to use the line as soon as he had five or six miles completed, he made money by the operation. There is another story, that he was allowed to charge a high price for passengers while the road was under construction, but must come down to a low figure when it was completed.

"The result was that the contractor stopped work before reaching the coast, and did not resume for a long time; there was a mile or so of unfinished road, and this gave him an excuse for exorbitant rates for passengers. Complaints were so numerous that the Government was obliged to interfere and compel him to carry out the spirit as well as the letter of his contract."

Frank watched from one side of the train while Fred kept a sharp eye out on the other. Soon after starting, the train passed a lagoon which abounded in aquatic birds—duck, teal, egrets, herons, curlews, snipe, pelicans, and the like. Were it not for the liability to fevers, owing to the



FLOCK OF PELICANS.

unhealthy miasmas rising from the lagoon, the region would be an attractive one for sportsmen. Even with its drawbacks a fair number of hunters find their way there, and some of them praise the locality in glowing terms. After passing the lagoon the road reaches the coral rock which is the foundation of Yucatan and supports a thin and rather dry soil.

The youths thought they were again among fields of the maguey plant and haciendas for pulque-making as soon as the solid ground was reached, but their new acquaintance undeceived them.



SISAL-HEMP.

"These fields that stretch for miles in every direction between the coast and the capital," said he, "are not covered with the maguev from which pulque is made, but with henequin. Henequin belongs to the aloe family, as does the maguey, and it is from this plant that a variety of fibre like hemp is produced. When Sisal was the seaport the product took its name: it is known in commerce as sisal-hemp, though very little of it comes directly from that place at present. It grows, like the maguey, on rocks or very thin soil where nothing else can flourish, and it requires no water or but very little. Take away the henequin plant and the fibre made from it, and Yucatan would be seriously crippled in its commerce. Considerable corn is raised, but it is mostly needed for home consumption. The value of the sisal-hemp export is above three millions of dollars annually, sometimes exceeding and sometimes falling below that figure.

"Yucatan has no rivers," he continued, "and the planters depend entirely upon rains for irrigation. These are supplied by the moisture from the Gulf of Mexico, and if this should fail the country would soon become a desert."

The gentleman then gave some information relative to the cultivation of henequin and the preparation of the fibre which we will reserve for a later page, when the youths have had an opportunity to see the process. Fred made note of the fact that the plant was indigenous to Yucatan, and used for the production of fibre long before the advent of the whites. Its exportation in large quantities is a matter of recent times, and is steadily increasing.

Henequin is grown from shoots which are cut from the base of the old plants. Three years after the shoots are set out the plant is large enough for a first crop of leaves to be cut; the cutting goes on for twelve or fifteen years, and in the mean time new shoots are set out every year, so that a plantation is constantly being renewed. When the plant is at its

full size the leaves are four or five feet long. After a plantation is fairly under way, and producing regularly, it requires very little attention.

The scientific name of sisal-hemp is Agave Sisalensis or Agave Sisalana; properly speaking, it is not hemp at all, and reminds us of the peddler of "hot mutton-pies" who replied, when a customer complained



INDIANS OF YUCATAN.

that his wares were frozen, "hot mutton-pies is the name of 'em." The true hemp is an annual plant, supposed to be a native of India, whence its culture has spread through the world, and it has no resemblance whatever to henequin, or Agave Sisalana.

While we have been talking on this and other topics the train has been rolling on towards Merida. Frank recorded in his note-book that Yucatan was first seen by the eye of a white man in 1506, and was first

visited and partially explored in 1517 by Hernandez de Cordova. The visit of Cordova was not altogether encouraging, as the Indians killed or wounded all but one of his companions, among the wounded being Bernal Diaz, the historian of Cortez. Not discouraged by his injuries, Diaz came the following year to Yucatan with Grijalva, and in 1519 with Cortez to the same country and Mexico.

Mexico and its treasures attracted attention for the next decade or two, and very little thought was given to Yucatan. In 1537 a settlement was effected; but the Spaniards were opposed by a ferocious people, and found time for nothing but fighting until 1540, when they defeated the natives in a great battle on the present site of Merida. After conquering the country they found they had achieved a barren victory, as Yucatan contained neither gold nor silver, the object of all the Spanish conquests in the New World.

After their defeat the Indians seem to have accepted the situation, and acknowledged themselves vassals of the Spaniards. They became Christians, like the people of Mexico, and though they may have been somewhat perplexed in their endeavors to reconcile the precepts and practices of the religion of the white men from beyond the sea, they did not find it worth while to argue vigorously with their masters. From an exceedingly warlike race they became a peaceable one, though they might have been otherwise had their country contained gold and silver mines, in which they would have been put to work as slaves.

According to history, they did not forget all the arts of war or lose their instinct for it. In 1761, and again in 1847, they rebelled against the Government and made a great deal of trouble; and even at the present time there is a section of the country where the Indians are living in open hostility to the authorities. A few thousand of them in the eastern part of Yucatan have made a great deal of trouble, causing towns and villages to be abandoned in consequence of the raids which they make at irregular intervals. Several times they have come into the neighborhood of Merida and caused a great deal of excitement.

Frank and Fred heard terrible stories about these Indians, and were cautioned not to go anywhere near their country. "If they get hold of a white man," said their informant, "they cut him to pieces immediately without waiting for any explanation, or else they take him to one of their villages and torture him in the most cruel manner for the amusement of the women and children. They live among the hills, swamps, and forests of the south-eastern part of the country, and though several expeditions have been sent against them, it seems impossible to penetrate to their

retreats. They have a very little trade with the English residents of British Honduras, but refuse to allow them to enter their country; one Englishman who had dealt with them for several years ventured to go there, and was never seen or heard of again.

"They are constantly making threats of destroying Merida, and as these stories are circulated they greatly alarm the timid portion of the inhabitants. It is not likely that they really intend anything of the kind, as they would probably be defeated, but they know the value of rumors and keep them constantly circulating. In this way they have diminished the population and business of Valladolid more than one-half. It was once a prosperous city, but is now languishing, and many of its houses are in ruins."



RETREATING FROM HOSTILE INDIANS.

CHAPTER XXIX.

RAILWAY-STATION AT MERIDA.—PUBLIC CONVEYANCES.—THE CALESA.—A RIDE THROUGH THE STREETS.—WHEN MERIDA WAS FOUNDED.—PRACTICAL MODE OF DESIGNATING STREETS.—PUBLIC BUILDINGS.—CASA MUNICIPAL.—DRESS AND MANNERS OF THE PEOPLE.—INDIANS, SPANIARDS, AND MESTIZOS.—A CITY OF PRETTY WOMEN.—CHARACTERISTICS OF THE MAYA RACE.—THE MESTIZO QUARTER.—SCENES IN THE MARKET.—BREAKFASTING AT A MEDIO RESTAURANT.—EUCHRE OR YUCCA.—USES OF THE YUCCA PLANT.—GAMBLING IN YUCATAN.—LA LOTERIA; HOW IT IS PLAYED.—AMERICAN COUNTERPART OF THE YUCATEO GAME.—A POPULAR ASSEMBLAGE.

THE train rolled into Merida and halted under the walls of an old convent that has been converted into a public hospital. As the passengers emerged from the station Frank and Fred were impressed with the



IN THE OUTSKIRTS.

listlessness of the cab-drivers, who did not seem to care whether they obtained customers or not. They stood or sat idly near their vehicles, and one was sound asleep on his box, where he evidently did not wish to be disturbed for so trivial a matter as earning a living.

The carriages in waiting were of various kinds. That which first caught the eyes of the youths was a calesa, a sort of chaise carrying two persons, the driver being seated on the horse; the shafts were of unusual length, and the weight was so placed that fully one-third of it rested on the animal, in addition to that of the driver. The wood-work was bright

with paint and gilding, and over the frame was drawn a cover of white linen to ward off rain and dust together with the heat of the sun, which is by no means light in Yucatan. Fred suggested that it was a wise provision of nature to seat the driver on the horse, as he could not conveniently go to sleep there.

A somewhat rickety carriage to hold four persons was secured, and in this conveyance the travellers proceeded to the only hotel of which Merida can boast. Until recently the place had no hotel whatever, and strangers were obliged to hunt lodgings for themselves or apply to their consular representative or a foreign merchant. Even as it is, a letter of introduction to a resident is a very useful document. Few travellers go to Merida, and the universal testimony of those who have been there is that the residents are hospitable. The same may be said generally of the inhabitants of the towns, villages, and haciendas throughout Yucatan.

The streets of Merida are broader than those of many other Mexican cities, but their pavement does not attract attention by its excellence.



THE CALESA. -ENTRANCE OF A MERIDA HOUSE.

The houses are of stone, and mostly but a single story in height. The entrance is generally through an arched door-way into a court-yard, and the windows that face the street are invariably grated and nearly all without glass. The construction of the houses suggests Moorish and Spanish architecture, together with some features peculiar to the dwellings of the natives.

Merida stands on the site of a native city, where a great and decisive battle was fought in 1540. According to the Spanish historians, there were 200 Spaniards against 40,000 Indians. Doubtless the figures are not exact, but it is quite likely that the defeated army was vastly superior in numbers to the invaders. The Spaniards had, of course, the advantage of fire-arms, as they had in the conquest of Mexico, and we have seen in previous pages what a great advantage it was. The Indians had only spears, swords, and bows and arrows, and their bodily defences were tunics of wadded cotton. These tunics were efficient against their own kind of weapons, but of little use to repel a musket-ball. The cannon of the Spaniards created terrible havoc among them, and one chronicler says that when the Indians were heavily massed the cannon-balls tore through them and moved down hundreds at every discharge.

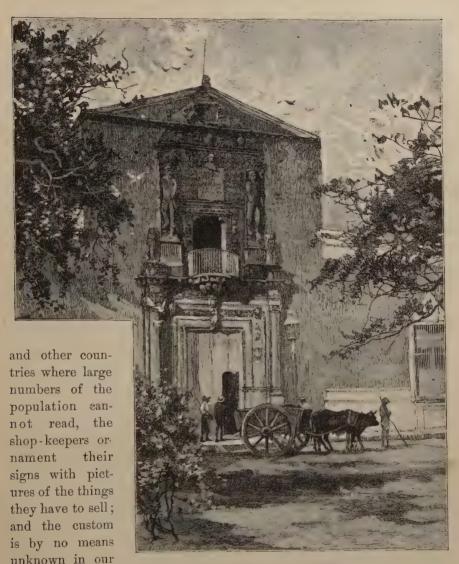
Where is now the Plaza Mayor was a mound of stone and earth at the time of the Conquest. On the top of the mound was an altar, on which sacrifices were made; but the natives were not as much addicted to them as were the people of Mexico. This very circumstance had much to do with the success of Cortez in his conquest. The Aztecs sought to take their enemies alive in order to sacrifice them on their altars; and it is said that Cortez himself was in their hands on two occasions. They might easily have killed him, but while they were leading him away uninjured, in order that he should be kept for sacrifice, he was rescued by his followers.

The mound referred to was torn down for the sake of the building material it contained; and the same was the case with many other mounds and pyramids in its neighborhood. Very much of the material of which Merida is constructed was obtained from these edifices.

The streets cross each other at right angles, and Frank observed something which he thought quite original in the naming of the streets. Here is his memorandum on the subject:

"For the convenience of the Indians who could not read or write Spanish, or anything else, in fact, the streets were named after birds and beasts. In addition to the Spanish name in letters there was the figure of the creature after which the street was called. The Street of the Ox had the figure of an ox in stone or plaster, or painted on the wall; the Street of the Flamingo presented a tall flamingo with a beak of fiery red, and the Street of the Elephant had a well-moulded figure of that animal with enormous trunk and tusks. The idea is a capital one, and I'm surprised it has been so little utilized."

"It is utilized more than you think," said Doctor Bronson, when Frank called his attention to the subject. "You remember that in Russia



HOUSE BUILT BY MONTEJO.

watch-maker
hangs out a wooden watch, a boot-maker displays a boot or shoe, and a
druggist shows a mortar and pestle. You remember how convenient it
was in the far East, for the servants who did not know a single Roman
letter, that the canned fruits, meats, and vegetables from America and England bore on their labels a picture of the article contained in the can?"

own land. A

"Certainly, I do remember," replied the youth. "After all, there's nothing new under the sun, though the application of the idea here is something we have not before seen."

There are twelve or fifteen squares, or plazas, in the city, the most important being, of course, the central one known as the Plaza Mayor. The cathedral and the Casa Municipal, or City Hall, face upon this square, and



MUSICAL INSTRUMENTS.

on one side of it is the oldest house in the city, dating from 1549. The city was founded in 1542 by Don Francisco de Montejo, the son of the Governor of the Province of Yucatan, and bearing exactly the same name. Montejo, junior, was lieutenant-governor and captain-general, and the old house just

tain-general, and the old house just mentioned, which is one of the sights of Merida, was built by him. The façade is ornamented with sculptures, which are said to have been made by Indians after designs supplied by the Spaniards. They represent the conquerors trampling on the bodies of natives, who have been made non-resistant by the removal of their heads. It was probably the idea of Montejo that the sight of these sculptures would deter the Indians from any further resistance to the white men who came from beyond the sea, and brought the Christian religion to replace the paganism which they found here.

The hotel in which our friends were lodged is also on the great square, directly opposite the old house of Montejo, which was the first building to which the youths gave special attention. Most of the buildings fronting the square are of more than one story; in fact, the best architecture of the place may be said to be in that neighborhood. The Casa Municipal is an imposing building of two stories, with broad porticos supported on arches. It has a high tower, from which watchmen are supposed to be constantly on the lookout for fires; though, owing to the material used in the construction of Merida, and the absence of stoves and furnaces, fires are of exceedingly rare occurrence.

"The first thing to attract our attention as we strolled through the streets," wrote Fred, "was the dress of the people. The men—I am speaking of the native Indians—wear cotton trousers, or drawers, which are tight at the waist, and descend to the knee or below it. Sometimes they have shirts on their backs and sometimes none; but in the latter case a man is reasonably certain to have one folded away in his hat, to be worn

on state occasions or when the rules of society demand. Some of them wear a long shirt and no trousers, and altogether the wardrobe of a native of the lower class is not costly. Frequently we see men with one leg of the trousers rolled up and the other hanging down, and it is a comical sight when a half a dozen thus arrayed are grouped together. A very noticeable feature about the shirt is that it is worn with the 'flaps' outside, like a carter's frock or 'jumper,' and not inside, as in northern countries.

"The dress of the women is a skirt hanging from the waist to the ground, and a white *uipil*, or outer garment, that hangs from the shoulders to the ground, like a loose wrapper. It is the traditional dress of 300 years ago, and the fashion has not changed at all in that time. On Sundays and feast days both sexes are arrayed in spotless white, but on other days their garments are apt to be more or less dingy. Compared to the Mexicans, the Yucateos, as the people of Yucatan are called, are won-



MUNICIPAL PALACE AND SQUARE, MERIDA.

derfully cleanly in their dress and ways, and it is as rare to see a dirty Yucateco as it is to see a clean Aztec. The uipil of the women has short sleeves, and is not as high in the neck as the close-fitted dress of New England, but is a modest and neat-looking dress, and the whiteness of the



DANCING SCENE.

material makes a fine contrast with the dark skin of the wearer.

"Many of the women are pretty, and we do not wonder that the Spanish conquerors were loud in their praises of the comeliness of the feminine part of the inhabitants of Yucatan. Their eyes are black as coals, and their sight is as sharp as that of the traditional Indian everywhere; altogether the people have a close resemblance to the Malay race, and we have but to close our eyes a moment to imagine ourselves once more in Batavia or Singapore.

"The people are of the Maya race, and here, in the name, we have a near approach to 'Malay.' By some they are supposed to be an ancient people who lived here before the advent of the Toltecs, which happened about the twelfth century; others believe

them to be a combination of two races, the Toltecs from the west and another race from the islands of the Caribbean Sea. Landa, Stephens, Squier, and other writers say the Mayas were the most civilized people of America; they had an alphabet and a literature, cultivated the soil, had rude machinery for manufacturing textile and other fabrics, possessed sailing-vessels, and had a circulating medium which corresponded to the money of the Old World.

"The great temples of Palenque and other cities of this part of the world were built by this people, or by tribes and races closely allied to them; we have shown by our accounts of Palenque and Lorillard City that these temples were of no mean architecture, and we shall have more to say when we come to the ruined cities of Yucatan.

"According to the Spanish historians, the people were ruled despotically by a king, and were divided into nobles, priests, common people,

and slaves. The king, nobles, and priests held the greater part of the lands; the land of the common people was held on the communistic principle, and each man had enough to cultivate for the support of his family. The commoners were obliged to supply the noble with fish, game, salt, and other things he wanted; to cultivate his land, and follow him to war whenever he chose to go on a campaign. In fact the condition of the peasants in Yucatan was much like that of the subjects of a rajah of India before the English took possession of the country, or of a daimio of Japan. They had nothing they could call their own, not even their lives, and their condition was not at all improved by the conquest of the country by the Spaniards, except that they were not liable to be taken for sacrificial purposes, according to the ancient custom.



NATIVE VILLAGE IN THE INTERIOR.

"Slavery has been abolished, and imprisonment for debt is no longer allowed by law; but every man between the ages of twenty-one and fifty can be drafted for military service. When so employed he receives six cents a day and supplies his own food!

"Merida has a population of about 50,000, by far the greater number of them being of Indian blood either pure or mixed. There is a large proportion of mestizos, or half-castes, and they are the handsomest part of the population. We have seen some mestizo women who could compete successfully in a beauty show including Mrs. Langtry and all the

other 'professionals' of the day. The mestizos inhabit a part of the town by themselves, where their thatched huts stand in quarter-acre lots planted with grass and trees. These huts are said to be very much like those occupied by the Indians before the Conquest.

"You know we always go to the market-place in every strange city that we visit, and may be sure we did not omit that of Merida. It is not unlike the market-places of Mexican cities in general, but has some feat-

ures peculiarly its own.

"Half the population of the city seemed to have gathered there—Indians, mestizos, Spaniards, foreigners, and dogs; and there was a hum of voices which never ceased for an instant. The manners of the natives are more pleasing than those of the people in the markets of Mexico. They chat good-naturedly and with many a smile, as though they enjoyed coming to the market without regard to whether they sell anything or not. A great deal of bargaining is necessary in making purchases, for the Indian has no notion of the value of time; and for the matter of that, the tropical resident, whatever his nationality, is rarely in a hurry. We passed many picturesque groups, fruit-sellers with their wares in broad baskets, their heads wrapped in rebozos either white or colored, and their eyes shining like little globes of polished anthracite set in their brown skins.

"These fruit-sellers were so numerous near the entrance of the market that it was no easy matter to get past them into the open space beyond. A medio would buy all the oranges, bananas, or mangoes that one would care for. Frank and I invested two medios (twelve cents) in oranges, and distributed them to a lot of boys that were strolling through the place. They took the fruit with an air of gratitude combined with dignity, and during the rest of our stay several of them followed us about in the hope that our princely generosity would be renewed.

"The square where the market was held was filled with little shelters to keep off the heat of the sun. These shelters were made by sticking up poles so as to hold a piece of matting or common cloth in a horizontal position. Under each of these impromptu tents a vender was seated, generally a woman or a girl, and the articles for sale were spread on the ground. Eggs, fruit, lettuce, peas, beans, and kindred products of the garden were thus displayed; and the wonder seemed to be that nobody trod upon the wares, which were certainly endangered by careless feet. Mules and donkeys with large panniers on each side brought loads of things to be disposed of, but the greater part of the burdens were borne on the backs of men. Occasionally a man on horseback appeared in the market, and once in a while a policeman showed himself, though his presence did

not appear to be needed at all. We did not hear or see anything that approached a quarrel, and were told that fights were of very rare occurrence.

"Some of these shelters are restaurants on a small scale, and one day we went to the market to take a medio breakfast, being assured that it was



FRUIT-SELLERS IN THE MARKET-PLACE.

one of the sensations of the country. We sought one of the most attractive restaurants we could find, and squatted on the ground close to the one individual who was proprietor, *chef*, head-waiter, waiter, and everybody else. Our breakfast was a stew of frijoles, chile con carne, and tortillas. It was served to us in *jicaras*, or half-shells of some kind of tree-fruit whose

name we did not learn. No spoons or forks were supplied. We used the tortillas for spoons, and afterwards devoured them in true Mexican style. As Sam Weller said of veal-pie, a medio breakfast in a Yucateo restaurant is 'werry fillin' at the price. The Yucateos are as devoted to the tortilla

as are the inhabitants of the rest of Mexico, and the native cooks are expert in its manufacture.

"While in the market we met our acquaintance of the railwaytrain. His first question was as to whether we had seen how the natives practise gambling, and his second, 'Have you tried euchre?'

"We thought it a singular question, and Frank replied that neither of us played that or any other game of cards.

"He laughed and said, 'I don't mean euchre; I mean yucca.'

"We looked rather puzzled I'm sure, and then with another laugh he pointed to a pile of something that looked very much like 'ruta-baga'



SITTING FOR HER PORTRAIT.

turnips, such as cattle are fed with in some parts of the United States.

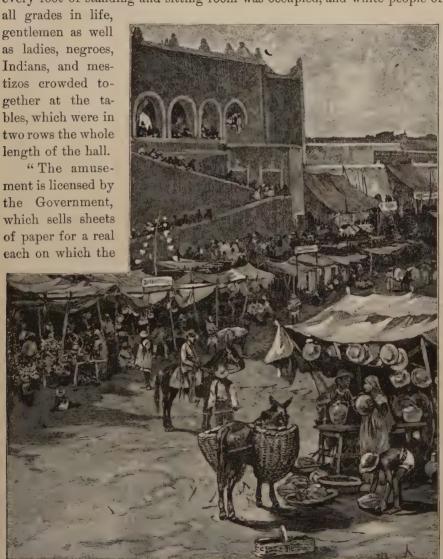
"'That,' said he, 'is yucca, and it belongs to the same family as the maguey and henequin.' As soon as he said this we remembered to have seen the plant in Mexico. We had just been talking about the fondness of the people for gambling, and hence our misunderstanding.

"We bought a medio's worth of the article and tasted it. The flavor was something like that of a sweet turnip, and not at all disagreeable. I can readily understand that one might become fond of it, and our friend said that it was quite nutritious. The root is eaten by the natives, the fibres furnish a textile fabric like henequin, and soap is made from the stalk and leaves. Recently an enterprising American has manufactured a preparation for the hair from the yucca plant, and it is said to possess remarkable powers for restoring hair to heads that for years have been as smooth as an ostrich-egg.

"While on the subject of gambling we will mention the popular amusement of la loteria, or 'the lottery.'

"Our guide took us into a large hall, which is open to the public, or

rather to anybody who can force his way through the dense crowd at the door. All classes seemed to have assembled there; rich and poor were seated at the same tables, and their object seemed to be amusement rather than gain. The stakes were very small, ordinarily a medio, and in a few instances dos reales. The room was hot as an oven, brilliantly lighted, every foot of standing and sitting room was occupied, and white people of



IN THE MARKET-PLACE.

game is played. It is done by a combination of numbers all the way from one to ninety. These numbers are arranged on the paper or cards in different combinations, no two cards being alike.

"Each player buys a card and places it in front of him on the table. Then a hat or a basket is passed around, and each one puts in his medio or whatever else the stake may be. When the money has all been collected and the amount of the stake announced, the game begins. In addition to his card each player has a pile of grains of corn in front of him, and a stick with which to rap on the table when the time to do so arrives.

"The object is to get a row of five numbers on the cards from the numbers which are drawn, and the one who first gets a row wins the purse. On a platform, in full view of everybody, is a man with a bag containing wooden or ivory balls, on which the numbers from one to ninety are painted. When the game is to begin, this man draws a ball from the bag and announces the number upon it, and the player who finds that number on his card places a grain of corn over the figures. One after another, numbers are called out in a voice that rises above all the confusion of sounds with which the place is filled, and each time a number is called it is marked with the corn.

"Everybody is intently watching his card, and there is a crowd of spectators looking over the shoulders of the players. Men, women, children—white, black, yellow, and all other colors possible to humanity—are there; and so are all the dresses of Yucatan, from the uniform of the high official and the satin or silk of the grand dame of society down to the cotton garb of the Indian, and quite likely his bare shoulders with no garb at all. Three-fourths of those present are smoking, and the atmosphere is like a morning fog, only a great deal worse.

"By-and-by somebody raps sharply on the table with his stick to indicate that he has made a row of five numbers, and stands up in his place. Then the man on the platform calls the drawn numbers again, and if the announcement of the row is correct the winner takes the purse. As the stake is small, he does not win a great deal; but evidently he is the envy of his less fortunate neighbors.

"Mistakes occur sometimes, and then there is a tumult, in which knives may be drawn and things become very lively for the by-standers. We did not stay long in the place, you may be sure, but we came away convinced that la loteria is less ruinous to the pockets of the players than many other games of chance.

"An American gentleman with whom we talked on the subject said that this game is not unlike one known in some other parts of the world

under the name of 'keno.' He told us that there were many other forms of gambling in Yucatan, most of them being forbidden by the Government, and consequently played less openly than the lottery. He told us that there was heavy gambling in the clubs; in some of them the play is only for gold, silver being considered too insignificant and bulky for the amusement of gentlemen.

"We thought it was very much to the credit of the people of Merida that the utmost good-nature seemed to prevail in the dense crowd at the hall we visited. We did not hear a rude word, or witness a rude act of any kind; and the only exceptions, we are told, is when there is a quarrel growing out of the drawing of the numbers from the bag."



NO MORE "LOTERIA."

CHAPTER XXX.

POTTERY AND HAMMOCK MARKETS.—HAMMOCKS IN YUCATAN; THEIR GENERAL USE FOR SLEEPING PURPOSES.—YUCATEO SALUTATIONS.—AN AWKWARD SITUATION.—FASHIONABLE, MESTIZO, AND INDIAN BALLS.—CHARACTERISTIC INDIAN DANCES.—WORSHIP OF THE SUN AMONG THE ANCIENT YUCATEOS.—NATIVE MUSIC.—ZOPILOTE DANCE.—VISIT TO A HENEQUIN HACIENDA.—THE VOLAN COCHÉ; A VEHICLE OF THE COUNTRY.—A RACE AND HOW IT ENDED.—ARRIVAL AT THE HACIENDA.—THE SCRAPING AND BALING MACHINERY.—STARTING A PLANTATION.—PRICE OF THE FIBRE IN THE MARKET.—"NO MONEY IN THE BUSINESS."—FIBRE-FACTORIES IN YUCATAN.—HOW THE OWNERS OF ESTATES LIVE.

"THE market we have described," wrote Fred, "is for the sale of articles of food only. There is another market where pottery, cotton fabrics, and other miscellaneous wares are sold, and still another which is

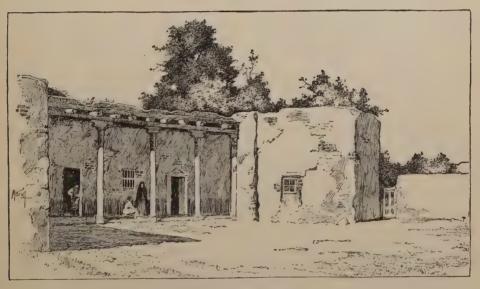


HAMMOCK LODGINGS IN THE COUNTRY.

entirely given up to the makers and venders of hats and hammocks. Hammock-making is a great industry in Yucatan, and thousands of these articles are sent to New York, London, and other foreign ports. A curi-

ous circumstance about this industry is that the best hammocks are those for home consumption; the foreign markets are unwilling to pay the prices of the fine qualities, and consequently none are sent away except upon special orders. When you next buy a Yucatan hammock in New York you may make up your mind that it is one in which only a very poor man here would sleep.

"Hammocks are in use for sleeping purposes all through this country, and the natives prefer them to beds. Our personal experience is that a hammock is a very good thing to lounge in, or even to take a nap, but for an all-night sleep it doesn't give the rest and refreshment to the tired



VIEW ON A BACK STREET.

body that we find in a bed. But habit has a great deal to do with this, as with many other things of life; a Japanese pillow is torture to a European quite as much as the European one is to a Japanese.

"The advantages claimed for a hammock are that the sleeper is protected from many insects that would trouble him in a bed, and the opportunity for the air to circulate, which is a very desirable matter in a hot country. Both these arguments are well founded, and so is the further one that the hammock-sleeper can carry his bed with him, as it weighs only a few ounces and can be rolled into a small parcel.

"We asked the prices and were staggered at the figures. In New

York we think \$2 a good price, and the majority of the hammocks sold there bring \$1 or \$1.50 each. The cheapest they showed us was \$7, and they had them all the way up to \$15, \$18, \$20, \$25, and even \$30. The dealer said that if these were not fine enough for our purpose we might have them made to order, and he could give us something superb for \$50. We bought some of the cheapest kind, and they were far better than anything we ever saw at home. The best qualities are made of very fine fibre, and if care is taken with them they last for several years.

"While walking along the streets near the market we met some ladies to whom we had been introduced. They recognized and saluted us; they were on the opposite sidewalk, and at first we thought they were beckoning for us to cross over to their side. Then we remembered what we had been told about the Yucateo form of salutation, and replied by raising our hats and bowing. This is what they did:

"Each lady raised her hand until it was on a level with her eyes, and then she 'wiggled' her fingers back and forth in a way that is impossible to describe in words. It is very much what one would do in our country if she wished to speak to you, and we can readily believe what we have been told, that this form of salutation is a great puzzle to the stranger.

"One day an Englishman, who was thus saluted, went up to his fair recognizer, a lady to whom he had been presented at a party on the previous evening, and stood waiting for her to begin the conversation. She was accompanied by another lady, neither of whom could speak English, while the Englishman did not know a word of any language but his own. The situation was awkward, and after both had pronounced several phrases that the other side could not comprehend, the Englishman bowed and proceeded to walk away. The lady repeated the Merida salutation, and this puzzled the stranger more than ever, as he supposed she wished him to follow. He gallantly complied, and walked demurely along till he happened to meet the gentleman who had introduced him. Explanations followed, and all parties concerned had a good laugh over the occurrence. It is probable that the Englishman's laugh was less hearty than that of the others, as he could not fail to be somewhat mortified at his awkward misunderstanding.

"In the fashionable hours for strolling on the paseo everybody is there, and no matter how often you meet any one whom you know you are expected to salute. This keeps everybody on the alert, as the turns of the paseo are likely to bring the same individuals face to face every few minutes.

"It was our good-fortune to be in Merida in the season of dancing,





and we were invited to go to a ball, in fact to several balls. We went first to an aristocratic one, which was given in the Casino, a large, two-storied building, with balconies or verandas all around, and brilliantly lighted. It is built around a court-yard planted with tropical trees and flowers in great profusion, and is a very attractive place.

"The ball-room occupied three sides of the upper story of the building, while the fourth contained the dressing and supper rooms. The orchestra was in the corridor just outside the dancing-hall, and while everybody could hear the music, very few could see the musicians. We got there before the dance began and while the ladies were coming out of the dressing-rooms and taking seats at the side of the ball-room, very much as they are seated in other countries. We observed that the gentlemen held the ladies by the hand as they escorted them to their seats, and not by giving them their arms as we do.

"It was a real beauty show when the ladies were ranged along the wall, and they seemed to know it just as well as did their admirers, who congregated at one end of the hall and in the corridors, and smoked cigarettes. The gentlemen chatted with each other with more or less animation, but watched the line of señoritas, whose eyes sparkled like diamonds and were a sharp contrast to their pearly white teeth. Under the light the señoritas' complexions were as glowing as that of a young English girl; of course, we cannot say how much of it is due to nature, and how much to cosmetics. They all had splendid heads of coal-black hair, arranged in the tasteful way for which Spanish ladies are famous.

"The music struck up for a waltz, and then each gentleman advanced towards the lady of his choice, and whirled her away for the round of the hall. The theory of these balls is that everybody knows everybody else, and the gentlemen did not ask the ladies whether they wanted to dance or not. Of course, it is to be presumed that they were there with that object in view, but we thought it would be more graceful if they had been consulted before being lifted from their seats and set in motion.

"We had wondered how it was possible for people to dance in this hot atmosphere, but when we heard how slowly the music played, and saw that the waltz was only a slow gliding and sliding over the floor, as though the waltzers were not more than half awake, we wondered no longer. It is nothing like the exciting whirl of a waltz in northern countries; and the same may be said of the other dances of this very select assemblage. We remained half an hour or so, and then went to the mestizo ball, where it was a good deal more animated.

"The mestizo girls wore the white dresses already described; some of

them had only a few ribbons or flowers for ornaments, while others were loaded down with bracelets, rings, and other ornaments, in which diamonds had a more or less prominent part. A gentleman who was with us said many of the diamonds were hired for the occasion, and he had no doubt that a good share of them were paste. The men were the most comical sights you can imagine, as they all wore their hats, and the most of them had their shirts waving outside, after the custom of the country. Some of them had coats and jackets. A man thus clad was looked upon as an aristocrat; but to be so considered he was obliged to suffer some inconvenience, as the outer garment is a serious burden in the heavy tropical



INDIANS DANCING.

atmosphere, made doubly oppressive by the heat of the room. Two or three men carried their jackets on their arms, and some flung them into a corner at the risk of never finding them again.

"The musicians were native Indians, who played with perfect time and melody, as though they had graduated from the schools of the most accomplished masters of Europe. All these people are natural musicians; a very little instruction suffices for them, and with careful training they

ought to be able to astonish the world. The men and women dance to perfection; we did not see a false step taken during the time we looked on at the ball, and yet it is not likely that any of the dancers ever had the advantage of a professional instructor. The members of the orchestra at the mestizo ball were dressed in the shirt and drawers already mentioned, and, like the dancing men of the party, retained their hats all the time they played.

"The dances were more interesting than those of the fashionable ball, inasmuch as the latter were European in character, while those of the mestizos had a peculiarity of their own. One was called the zopilote, or buzzard dance; a man and a woman each carrying a handkerchief which they twirled above their heads, and in all sorts of directions whirled and twisted themselves along the floor, all the while keeping perfect time to the music of the performers. It reminded us very much of one of the national dances of the Russians, which is often given by the ballet troupes of the imperial theatres of Moscow and St. Petersburg, and may be seen in its simplicity in almost any town or village of the great northern empire.

"But more interesting to us than either of the balls we have mentioned was that of the Indians, where they were indulging in historic dances which have been preserved from ancient times. When we entered the room, which was pretty well filled with people who respectfully made way for us, the performance had already begun. We will remark here that the ancient Yucateos, like the Parsees, were worshippers of the sun; the reverence for that luminary has descended to this day, though it is by no means preserved in its former purity.

"Mr. Ober, the author of 'Travels in Mexico,' seems to have witnessed a better performance of this dance than we did, as he saw the beginning, which we did not see, so we will quote his account, which is as follows:

"'The first thing these Indians did was to spread a banner in the centre of the room, on which was painted a figure of the sun, with two people kneeling in adoration of it. The chief of this band of about twenty Indians then suspended from his neck a bright-colored representation of the sun stamped on tin. At the foot of the banner-staff crouched an old man, with a drum made by stretching the skin of a calf or goat over one end of a hollow log; at the side of the drum hung the shell of a land-tortoise, and the old man beat the drum and rattled the shell in unison. The article with which he beat the drum attracted my attention, and I examined it and found it to be the gilded horn of a deer. This hollow drum, with turtle-shell and deer's antler, fully confirms the statement that the

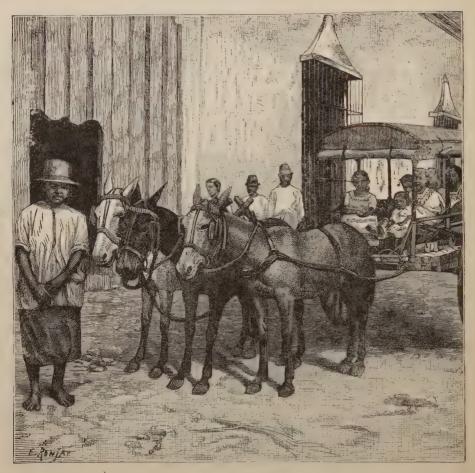
music is aboriginal; for one of the old chroniclers, in an account of a terrible battle with the Indians of Campeachy, writing not long after the event, says that they made a most horrible and deafening noise with these instruments: "They had flutes and large sea-shells for trumpets, and turtle-shells, which they struck with deer's horns."

"'After the banner was spread, the band ran around it in a crouching attitude; in one hand each held a rattle, and in the other a fan of turkey feathers, with a handle formed by the foot and claw of the bird. Each one wore a wire mask, with a handkerchief over his head, and a mantle embroidered with figures of animals, and hung with small sea-shells. The



PREPARING FOR THE BALL.

costume was that of the mestizo women—a skirt from the waist to the ankles, with their peculiar dress over it—just such an one as was worn by their ancestors centuries ago, and by the ancient Egyptians. On their feet they wore sandals, tied on with hempen rope. The chief was distinguished by a high crown of peacock feathers. He chanted something in the Maya language, and they replied, and then the music struck up a weird strain and they danced furiously, assuming ludicrous postures, yet all having seeming significance, shaking their rattles and fans to right and left, and all keeping perfect time. After nearly half an hour of dancing they stopped at a signal from the chief, and gathered about the banner, gazing upon the image of the sun with looks of adoration.



A VOLAN COCHÉ.

"'This was the dance of sorrow or supplication; after it came the dance of joy, an Indian fandango; then the flag was furled and the floor occupied by two couples."

Their night in the round of balls caused our friends to sleep rather late the next morning. While they were at breakfast an invitation came to visit a henequin hacienda near the city, in the company of one of the owners, to whom they had been introduced. It is hardly necessary to say that they accepted at once.

They were to start at an early hour on the following morning, and at the appointed time a *volan coché* was announced at the door. Frank's description of this vehicle will be interesting to our readers.

"It is the travelling carriage of Yucatan, and well adapted to the bad roads of the country. It consists of a shallow box on two wheels, the box being suspended on leather springs and having a thick mattress spread over the bottom and just filling it. One or two Europeans form a load for one of these carriages, but it will easily hold half a dozen natives of assorted sizes. There are no seats; one is obliged to lie at full length or sit Turkish fashion, and hold on with one or both hands. Doctor Bronson says the volan coché is warmly recommended for dyspeptics, as it is guaranteed to kill or cure them in a very short time.

"The driver sits on the foot-board, very much as in a Canadian calèche, and if there is any baggage it is piled on a projecting frame behind the passengers. The carriage has a top to shelter passengers from sun and rain, and there are curtains to be let down or rolled up as one may wish.

"Three mules are the regulation team for a volan coché. They are



A STREET IN MERIDA.

harnessed abreast, and under the control of a vigorous driver they get over the roads with commendable rapidity, when all things are considered. There is a great deal of swing to the vehicle, and it overturns occasionally, though not often. The roads of Yucatan are not at all good; one man told us they were made by Cortez three and a half centuries ago, and have never had a dollar of expenditure for repairs since they were constructed."

As our friends went to the door they met their host, who had just descended from the carriage and was ready for them. Frank and Fred wondered if all four of them, the host and his three guests, were to ride in one coché, and while the wonderment continued another vehicle of the same kind came dashing around the corner.

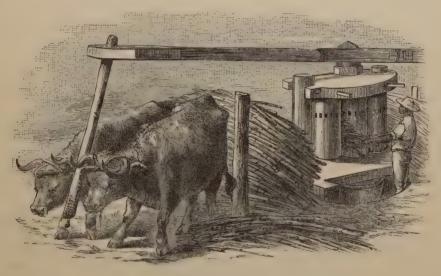
Their entertainer, Mr. Honradez, suggested that Doctor Bronson and himself would ride in one carriage, while the two youths occupied the other. As they were to spend a night at the hacienda, each of the travellers carried a small hand-bag, and these articles, added to some cushions which Mr. Honradez had thoughtfully placed in the seatless vehicles, added considerably to the comfort of the ride.

Away they dashed along the rough streets of Merida and out through the thickly shaded suburbs. They met dozens of natives bringing into the city loads of country produce to sell in the market-place; the bearers bent beneath their burdens, and many of them had travelled all night in order to reach the city in the morning. The most conspicuous of these porters were the sellers of ramon, the branches of a tree that serve as food for horses and mules, which eat the leaves and twigs of ramon as they do grass or hay. According to its bulk, the stuff is very light, and a ramon-seller is completely hidden beneath his apparently enormous but really comfortable load.

"Mr. Honradez made things interesting," said Fred, "by getting up a race between our two carriages. He promised two reals to the driver who would get first to a village which he named, and the fellows went at it in earnest. They stood up on the shafts of their vehicles and yelled at their mules; at the same time they were not sparing of their whips, and the result was that the poor beasts went at a furious gallop for a mile or more. Our driver got in advance, and as we saw that the race would be kept up as long as the teams could run, Frank and I suggested to him that we would give him three reals to let the other man win. He immediately accepted the offer and dropped to the rear, shouting something in Maya to his competitor as the latter passed him. After that we went on at a more respectable pace, and were heartily glad that the breakneck speed was not kept up.

"At the village, the name of which I have forgotten, we rested ten or fifteen minutes and then went on, reaching the hacienda just as the forenoon was beginning to be uncomfortably warm. The great heat of Yucatan renders it desirable to make all journeys in the night as much as possible, and hence our early start from Merida.

"The hacienda covers a large area of ground, there being thousands of acres devoted to the culture of henequin. Then there is a considerable amount of sugar and corn grown on the place—enough for the use of all the employés, and something more besides. In the sugar-making industry the machinery is primitive, the cane being crushed in a mill propelled by

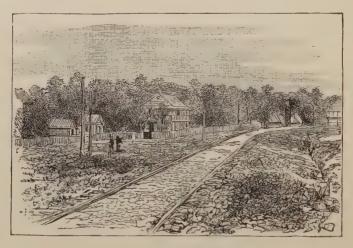


A PRIMITIVE SUGAR-MILL.

oxen in the old-fashioned way, and the sugar obtained from the juice by the processes of half a century ago. The real profit of the hacienda is in the production of fibre, and in this the latest machinery is in use. The old process of making fibre by hand is altogether discarded as unprofitable, and the stripping of the leaves of the henequin is performed by great machines built in the United States or England, and driven by a powerful steam-engine of American make.

"The machinery is not at all complex, and it is evident that no great ingenuity was required to invent it. The scraper consists of a large wheel armed with strong and blunt knives all around its rim. The henequin leaves are pressed against this rim, and by means of a lever, worked by the hand and foot of an Indian, the knives, drawn by the swiftly revolving wheel, remove in an instant the pulp which covers the fibre and lay it bare. Considerable dexterity is required for this work, and we looked on in admiration at the deftness of the Indian who performed it.

"The pulp being removed, the fibre is taken from the leaf in long strips like a 'hank' of very fine silk thread of a beautiful green tinge. It is made into small bundles and placed in the sun to dry. In drying it



RAILWAY-STATION IN THE HENEQUIN DISTRICT.

loses its color and becomes white and silky, and when thoroughly dried it is ready for baling. The only care requisite in the drying process is to see that it does not get wet by the rain, and that all its natural moisture is expelled. Unless this is the case it will ferment after baling, and fermentation means a great reduction in the commercial value of the article.

"We watched the machine turning out the fibre, and then went to the

"We watched the machine turning out the fibre, and then went to the baling-house, where the stuff was being put up by a cotton-press into bales of about 450 pounds each. In this condition it is shipped to market; one scraper, requiring the labor of four men to tend it, will produce about one bale of fibre daily, provided the leaves are of fairly good size and quality and the workmen are not novices. The average value of henequin fibre is about \$20 a bale, delivered at the nearest railway-station; of course it has its ups and downs, like any other commodity in the world."

After our friends had looked at the machines and partaken of a hearty breakfast—the fact is that the breakfast came before the inspection of the scraping and baling departments—they took a siesta, according to the custom of the country, until the cool hours of the afternoon. Then they mounted horses and accompanied Mr. Honradez in a ride over the estate and through the fields of henequin plants. As they rode along, and paused occasionally to contemplate objects of especial interest, the gentleman explained some of the features of the business.

"If you have decided to go into an enterprise of this sort," said he, "you must first get your land by buying it from the Government or a private owner, who is generally the descendant of somebody who obtained an immense grant in consequence of some real or fancied service to the Spanish Crown. The land is covered by a sort of scrub, which must be cleared away. The clearing is effected by cutting and burning, the cutting being done one season and the burning the next. Then the young plants are set out in holes dug in the thin soil; they are set about eight feet apart, and take root at once. You have doubtless learned already that the plants are in condition for cutting when they are five years old, and will yield leaves annually for fifteen or twenty years. A good planter will so arrange it that new plants are constantly coming to maturity; and this he will do by setting out a certain quantity of new ones every year."



STOREHOUSE AT THE HACIENDA.

Frank asked how many leaves were required for a bale of fibre.

"From six to eight thousand," was the reply, "according as they are large or small. Their size depends considerably upon the amount of rain which falls in the few weeks preceding the time they are cut."

"Is all the fibre made at the hacienda sent out of the country?" queried Fred.

"Not literally all," said the gentleman, "but for practical purposes the whole of it is exported. Four-fifths of our product is sent to the United States, where it is used for cordage, bagging, and many other things of the same sort, and most of the rest to Europe. There are two or three small factories here in Yucatan for making coarse cloth, ropes, and twine out of



A MORNING RUN.

the fibre: they are owned by Americans or Englishmen, and their machinery is of foreign make, mostly American. With the exception of the overseer, engineer, and machinist, all the employés are natives, many of them being mestizo girls, who are as skilful as the girls of any other country in tending the looms where the cloth is woven. These factories purchase their fibre from the haciendas, but their consumption is small. The

Indians use a great deal of fibre in making articles for their personal needs, but they generally scrape it by hand. They are very conservative, and if permitted to have their own way they would destroy every machine in the country before sunset to-morrow."

It was evening before the ride was concluded, and the party returned to the hacienda, where a dinner of substantial character awaited them. Of course Mr. Honradez insisted that there was "no money in the business," and said he would be glad to sell out for less than what his estate had cost him. But Fred made a mental note of the fact that he did not name any price at which he would sell, and that he lived in princely style both at the hacienda and in Merida. He had two sons at school in Paris, a daughter was being educated in Merida by a specially imported governess, and the gentleman himself spent a good half of his time in other countries. From these facts, and from information of various kinds that reached them, the youths concluded that the henequin culture was profitable; and in this view they have many supporters both in the country and out of it.

CHAPTER XXXI.

FIRST NIGHT IN THE HAMMOCKS.—INSPECTING A CENOTÉ.—UNDERGROUND WATERCOURSES AND LAKES.—HOW CENOTÉS ARE FORMED.—A SUBTERRANEAN BATH-HOUSE.—A NORIA.—WATER TAX ON A DIRECT SYSTEM.—NATIVE SUPERSTITIONS.—A LIZARD THAT SHAKES HIS TAIL OFF.—BITING A SHADOW, AND WHAT COMES OF IT.—JOURNEY TO THE RUINS OF UXMAL.—A HEETZMEK.—YUCATEO MODE OF CARRYING INFANTS.—BREAKFAST AT A HACIENDA.—GARDEN AT UAYALKÉ.—EATING TROPICAL LIZARDS.—FRED'S OPINION OF LIZARD STEWS.—BEES OF THE COUNTRY.—SUPERFLUOUS INDUSTRY OF YUCATEO BEES.—EVENING PRAYER AT A HACIENDA.—ARRIVAL AT UXMAL.

"WOULD you like to see a *cenoté*?" said Mr. Honradez, just before our friends retired for the night.

"Certainly," replied Doctor Bronson for himself and the youths, while the latter wondered what a cenoté was.

"Well, I'll show you one in the morning." was the reply. Then there



A CORNER OF THE HACIENDA.

was an exchange of wishes all around for a pleasant slumber, and in a little while everybody was in bed, or rather in hammock. Our friends had brought their hammocks as part of their baggage, and when they were ready to retire they found those useful articles stretched in the corridor of

the principal dwelling of the hacienda, in a place that afforded ample ventilation.

Whether it was owing to the expected cenoté or the unrestful character of a night's novitiate in a hammock we are unable to say, but the youths were up somewhat earlier than usual and eager to begin the day.



AN UNDERGROUND WALK.

Doctor Bronson was not far behind them, and they did not have to wait long for their host. When he appeared he was followed by a mozo carrying an armful of towels, and after a hearty greeting led the way to a small house at a little distance from the stables of the hacienda.

Fred suggested to his cousin, while their host was in conversation with Doctor Bronson, that the cenoté was probably some kind of game, and they would quite likely have it for breakfast. "Perhaps," said he, "they keep it alive and kill it when wanted, and this house may be the place where it is shut up."

"I think it's something to wear," replied Frank, "and the house is the store-room. Possibly, though, it's some kind of vegetable like celery or onions. Anyway, we'll find out soon."

They were speedily enlightened on the subject. On reaching the house in question, Mr. Honradez explained that it was the entrance to a private cenoté of his own.

"You are already aware," said he, "that there are no rivers in Yucatan, and have learned from experience that we have plenty of water, not-withstanding the absence of streams. Beneath the calcareous formation on which the whole of the peninsula stands there are streams and lakes

of water, which are reached through natural or artificial openings in the surface rock. These openings, whether natural or artificial, are called cenotés, and some of them are of great depth. Sometimes they are mere pits or wells, and, on the other hand, there are cenotés which form large grottos with lakes of considerable area. The water is clear and cool and entirely wholesome. We use the cenotés for obtaining our supply of water and also for bathing.

"This is our bathing-house," he continued, "and I've brought you



FORMATION OF STALACTITES.

here for your morning bath. You will find bathing-trousers in the rooms, and can undress and come down as soon as you like."

He showed them the way into their dressing-rooms, and then disappeared into a room of his own. When the youths reappeared, in appro-

priate costume, their host called to them from somewhere down in the interior of the earth, and they proceeded in the direction of the voice.

By a sloping and slippery stair-way cut in the rock they descended some thirty-five or forty feet till they reached a pool of clear water over which the rock rounded in a high dome nearly to the surface. A hole two or three feet in diameter and covered with an iron grating opened in the centre of the dome, and gave light enough to show the interior of the place very fairly. Many stalactites hung from the roof, and stalagmites stood up wherever they could find standing room. From the grotto where our friends found themselves little nooks and small grottos opened, so that the spot was by no means unattractive. Numerous lizards clung to the rock or swam in the water; and these crawling and slimy things took away many of the merits the bathing-place might have possessed.

"The lizards do no harm," said Mr. Honradez, "but they are not pleasant to look at, and we would gladly drive them out if we could. There is a curious bird called the 'toh' which lives in the cenotés; it has a soft plumage, and sports a long tail of only two feathers, which have nothing on their stems until the very tip is reached. If you look sharp you may possibly see an eyeless fish similar to the fishes which are found in the Mammoth Cave in Kentucky."

The youths looked in every direction, and though Frank thought he saw one of these strange members of the finny tribe he was unable to capture it. Frank asked if the cenotés communicated with each other or were separately supplied from the rains sinking into the ground.

"We cannot say that all of them are connected," was the reply; "but it is certain that some of them are. Many contain streams with perceptible currents, and it has been observed that at times the cenotés are full of alligators, while at others none can be found there. As the alligator cannot pierce its way through solid rock, there must be channels which connect with large bodies of water where the alligators live."

At the suggestion of alligators Frank and Fred intimated that they did not care to stay long in the water, and their search for eyeless fish was abandoned in favor of the larger game. Mr. Honradez laughed, and said there was not the slightest danger, as no alligator larger than a rat could possibly make its way into the place where they were, as all the entrance channels were very small.

Thus reassured, they remained tranquil, and enjoyed the plunge and swim in the cool water. Meanwhile their host explained that these sources of water supply had been known from very ancient times; long before the Conquest the inhabitants built their towns near the water-holes, and at

the present time any one desiring to establish a hacienda seeks first a good cenoté, and locates his buildings near it.

On returning from the bath the host showed them the well which supplied the hacienda with water. Peons drew the water in buckets at the end of a long rope passing over a windlass, and poured it into a large trough, whence it was taken by the servants from the kitchen, or allowed to flow in pipes to the engine-house, stables, or wherever else it was needed.

"In nearly every village throughout Yucatan," said Mr. Honradez, "you will find a well of this sort in the public square; it is called a noria, and the usual mode of drawing water is by an endless rope passing over a wheel and carrying small buckets. These bring up the water from below, and as they turn over the wheel they pour their contents into a trough. The system is almost an exact copy of that in use in Egypt centuries before Yucatan was heard of. The rude machine is propelled by a mule walking in a circle and driven by a boy. The mule is invariably an old one, fit for no other work, and sometimes a horse or ox, likewise old and poor, is found in its place."

"I suppose the village pays for the mule and the driver," one of the youths remarked.



AT A NORIA.

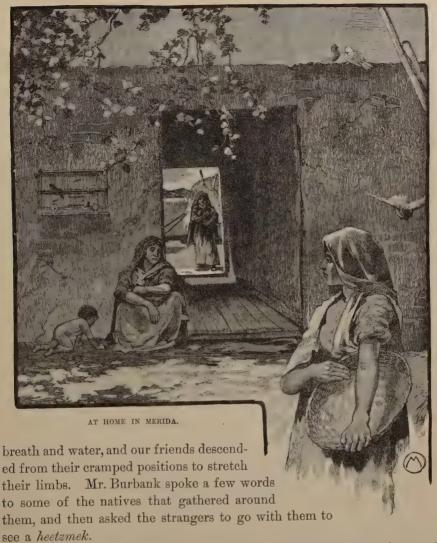
"Yes," was the reply; "and the payment is by direct taxation. Every person who takes a jar of water is expected to leave a handful of corn in payment. This corn goes for the support of the boy and the animal, and to judge by the condition of the beast, the lion's share of the tax is taken by the boy."

The conversation about the curious wells of Yucatan came to an end with several stories concerning them. One was that in the town of Tabi there is a large cenoté which shows down in the depths of the water when the sun is at the meridian the perfect figure of a palm-tree, trunk, leaves, and all being fully delineated. In another town there is a cenoté where, according to the early chroniclers, any one dies instantly who enters the water without holding his breath. It is needless to say that bathing there is not at all popular. Other subterranean pools contain poisonous lizards which cause violent and even fatal headaches by merely biting the shadow of any person who passes them. Another lizard, when wounded, is said to throw its tail at its assailant; it detaches and throws it a distance of several yards, and if it strikes the flesh will cause death. Many of the cenotés are reputed to be the haunts of demons and fairies, the bad spirits being much more numerous than the good ones.

In the cool hours of the afternoon our friends started on their return to Merida, and late in the evening drew up in front of the hotel. Their host urged them to remain a week or two at the hacienda; with the politeness customary to the country, he told them that the place and everything about it were theirs—a declaration which was certainly in earnest, so far as a prolonged visit was concerned. But they were anxious to continue their investigations of Yucatan, and having already arranged to go to Uxmal with an American gentleman residing at Merida, were unable to remain longer with Mr. Honradez.

The second morning after their return they started for the ruins of Uxmal, which are about sixty miles from Merida. Doctor Bronson and Mr. Burbank, his American friend, rode in one volan coché, and Frank and Fred in another. A cart with the needed supply of provisions and cooking utensils had left on the previous day, and was to meet them at Uxmal, which contains no hotel or other accommodation for travellers. Lodgings are taken in some of the deserted and ruined buildings; and with a suitable equipment and a supply of food, one can get along very comfortably.

The road presented the same scenes as the one they had taken a few days before, and therefore does not need special description. At the first village on the road the vehicles halted to allow the panting mules to take



Wondering what a heetzmek was, they followed to a house a few yards away, where a woman was walking around the dwelling carrying a very young child astride her hip. Having completed the circuit, she repeated it again and again, till she had walked five times around the dwelling, carrying the child as before.

"This is a ceremony which corresponds to the christening of infants in other countries," said the gentleman. "The woman that you see is the baby's godmother; the position in which the Yucateos carry their

children astride the hip is like that of India and some other Asiatic countries. The heetzmek is performed when the infant is about four months old.

"The natives believe in the magic of the number five. You have seen the woman walk five times around the house as she carries the child.



SCENE OF THE HEETZMEK.

Five eggs have been buried in hot ashes, and as they break they will rouse the five senses of the infant; if they fail to open, it will be of only ordinary intelligence, but their breaking will insure extraordinary mental ability."

"Probably," remarked Frank, "they take good care to have the ashes hot enough to make sure that the eggs will burst."

"If they are as intelligent as they want the child to be, they certainly will," replied Mr. Burbank. "In addition to the egg test there is a further ceremony of putting into the infant's hands the implements it will use when matured. The godmother is held in great respect by the whole family, and especially by the child for whom she has stood sponsor."

The heetzmek over, the journey was continued, the mules having rested sufficiently.

It was nine o'clock in the forenoon, and about twenty-five miles of the

journey had been made when the walls of the hacienda of Uayalké came in sight. The appetites of the youths were on a keen edge, and Frank remarked to Fred that he could breakfast off the hind-leg of a donkey, if only that ordinarily unattractive viand were presented.

"I think I scent breakfast," responded Fred. "They are famed for their hospitality in Yucatan, and we'll probably find what we want at this

hacienda."

His prediction was verified, for hardly had he ceased speaking when the foremost carriage turned towards the yard of the hacienda, followed very naturally by the other. The drivers unhitched their mules beneath a wide-spreading tree in front of the residence of the manager, and proceeded to make themselves at home. The *mayordomo* came out and welcomed the strangers, and without waiting for a suggestion from Mr. Burbank, whom he knew, he sent a servant to order breakfast. In a very short



GARDEN OF THE HACIENDA.

time it was ready, and the travellers sat down; tortillas, frijoles, stewed chicken, eggs, and fruit, disappeared in due course, and the keen appetites were keen no longer.

"How about the posterior limb of the equus asinus now?" whispered

Fred to Frank, as they left the table.

"Non possumus," was the only answer that occurred to Frank. His views on the subject of edible things had materially changed in the last hour.

The youths made note of the fact that the hacienda of Uayalké was a large and evidently a very prosperous one. The manager told them that they had several thousand acres of land in henequin, and there were more than 1200 men and women employed about the establishment and in the fields. The engines and machinery were more ponderous and powerful than at the hacienda already described; and the buildings of the establishment, together with the huts of the laborers, formed quite a settlement. There was a deep cenoté, from which a troop of women were drawing water, by means of a wheel, with buckets on an endless rope; as fast as their jars were filled they carried them away in the direction of the garden, where the water was used for keeping bright the orange and other trees that cannot live without water.

The garden, thus invigorated, was like a spot of green in a desert, and reminded the youths of some of the oases they had visited in their Oriental journeyings. Frank compared it to Biskra, in the Great Sahara, and Fred declared that he saw a striking resemblance to some of the gardens at the edge of the Libyan Desert. Beyond the garden in every direction was the dry and repellent land covered with the hardy henequin, which needs no water, or but the merest trifle of it.

They did not see an idler about the place, every one from the manager down seeming to be fully occupied. Mr. Burbank said that no hacienda in the whole country was better managed than this, and there was none where the laborers were better satisfied with their employer and employment. He added that here, as everywhere else in Yucatan, the laborers were constantly in debt to the establishment, and therefore were unable to quit work suddenly or "go on strike." A laborer who is in debt cannot change employers, unless the new one assumes the responsibility of the obligation to the old; and to bring this about requires considerable negotiation.

After a stay of two hours and more at the hacienda, the journey was continued. Six or seven miles farther on the travellers reached the cenoté of Mucuyché, and made a brief halt to examine it. The cavern is about forty feet deep, and the entrance is surrounded by a garden kept green by the water drawn from the never-failing source. Our friends descended by means of steps cut in the rock. These steps were overhung by stalactites, which furnished convenient holding-ground for nests of swallows and hornets in great numbers. What particularly pleased the youths

was that they found here an abundance of the blind fishes that they sought in vain in their first exploration of underground Yucatan. There was the same abundance and variety of lizards and other creeping things as before; some of them were of goodly size, and Fred learned that they were iguanas, and that they often appeared at table.

"I suppose you drive them away as soon as possible," he replied.

"They are not pleasant things to look at when one is eating."

"On the contrary," Mr. Burbank answered, "the iguana is a delicacy of which I have often partaken. He appears at table, not in his live state, but after passing through the hands of the cook."

Fred thought he did not want any iguana then or at any other time, and his mind was firmly made up on the subject. His views changed two



NATIVE VILLAGE NEAR UXMAL.

or three days later when, after eating heartily of a delicious stew, which secured the praises of both Frank and himself, he learned that the stew aforesaid was nothing less than the despised iguana. He quietly remarked that great allowance must be made for prejudice, and then dismissed the subject.

Two hours before sunset they reached a hacienda, where they received

the same cordial reception as at Uayalké. It had been intended to complete the journey to Uxmal that day, but as the hour was late and darkness would certainly overtake them before their destination could be



HUNTING THE IGUANA.

reached, Mr. Burbank decided to accept the pressing invitation of the mayordomo to spend the night there.

The mules were unharnessed and led away to the stables, where they were bountifully fed on fresh grass cut and brought by the peons. There was a fine garden here filled with all sorts of tropical trees; and not the

least interesting sight in the place was a large number of beehives of a very primitive character. They were nothing else than sections of a hollow log cut off with a saw, and the ends closed with dried mud, or with boards fitted in, like the head of a barrel.

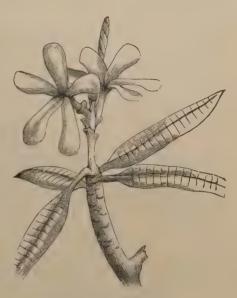
Frank and Fred stood at a respectful distance as they looked at the beehives. They were mindful of the proverb which refers to the prudence of the burnt child; and having been stung by the honey insects on

several occasions, they did not wish a repetition of the experience. Mr. Burbank walked fearlessly up to the hives and called to the youths to follow him.

"Please excuse us," replied Frank; "the bees may recognize you, as you've been here before, but they don't know us."

"Never mind them," the gentleman answered, with a laugh.
"The bees in this country are stingless, and you run no risk in making their acquaintance."

Thus assured, the youths advanced and found themselves unharmed. The bees circled about them in great numbers, but "left no sting behind." Mr. Burbank told them that the hives were



WHAT PERFUMES THE HONEY.

emptied every six or eight weeks, and thus the bees were kept busy the year round. Why they collect honey in a country where flowers are perpetually in bloom he could not understand. "It speaks well for the industry of the insect," he remarked; "he has no occasion to work, and only does so from the force of ancestral habit. He has some imitators among the human race, but by no means so generally as many of us might wish."

While discussing the subject of bee-keeping in Yucatan they were called to supper, which was an excellent one, of purely Mexican character. Turtle soup, chile con carne, frijoles, tortillas, and other national dishes were served in abundance, and the meal ended with honey from the bee-hives which they had investigated. Frank and Fred had observed a delicious fragrance as they entered the room where supper was served, and were unable at first to discover its origin. All the scent of the finest

flowers of Yucatan seemed to be gathered there. They looked around for floral baskets or bouquets, but none were visible. When the honey was served they found that this it was which furnished the fragrance, and they asked Mr. Burbank about it.

"You are quite right," he answered; "it is the perfume of the honey that fills your nostrils. In some seasons of the year it is much greater than now; it spreads over the whole house, and is as powerful as musk or any other famous perfume of the Old World."



THE SIERRA FROM THE GARDEN OF THE HACIENDA.

Just as they rose from the supper-table the bell of the chapel rang for oracion, or evening prayer, which was attended by our friends and all the laborers and everybody else about the establishment. When the service was ended each of the worshippers said "Buenos noches, señor" (goodnight, sir) to each of the strangers. Everybody went early to bed, and by nine o'clock the whole place was in the deepest silence. This remark will not apply to all seasons of the year; during the periods of fiestas, or festivals, late hours are generally kept, and early rising is not assiduously practised.

The hammocks of the travellers were slung in a corridor, and the free

circulation of air and the coolness of night, together with the fatigues of a long ride over rough roads, insured sound sleep. In the morning chocolate was served before six o'clock, and a little after that hour the carriages were on their way. No direct payment for the hospitality of the hacienda was in order, but indirect compensation was made in the shape of fees to the mayordomo and the servants who had waited upon the strangers.

Soon after leaving the hacienda the road ascended, and Frank ascertained from the driver, who spoke Spanish fairly, that they were climbing the sierra, a hilly ridge hardly worthy the name of mountain, though called so by courtesy. It is the highest ground of Yucatan, and therefore the inhabitants are to be excused for calling it a mountain, as they would otherwise be without one.

From the top of the ridge they looked over a considerable area of country covered with the scrub forest for which the country is noted, and dotted here and there with the ruins of cities, which indicate the existence of a numerous population in previous centuries. Down the other side of the ridge they went at breakneck pace, the cochés being tossed from side to side with such violence that the youths were compelled to hang on with both hands to prevent being thrown out and left by the road-side. Several times the vehicle narrowly escaped overturning; and this, too, close to chasms where an upset would have sent them almost perpendicularly down a hundred feet or so, and reduced vehicle, mules, passengers, and baggage to an average value of fifty cents a bushel. And the curious thing about the whole business was that on reaching level ground the driver reined in his team and proceeded at a more dignified pace.

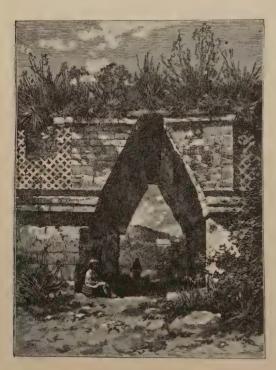


SIDE OF ANCIENT ALTAR.

CHAPTER XXXII.

A ROMANTIC LEGEND.—HOW THE KING WAS OVERCOME BY THE WITCH.—VISITING THE DWARF'S HOUSE; ITS POSITION AND PECULIARITIES.—HOUSE OF THE NUNS; ITS EXTENT AND CONSTRUCTION.—CASA DEL GOBERNADOR.—DESTRUCTIVE AGENCIES AT WORK.—AT HOME IN A ROYAL PALACE.—MAYA ARCHES.—TROPICAL TREES AND PLANTS.—DOUBLE-HEADED DOG OF UXMAL.—GARAPATAS AND THE ANNOYANCE THEY CAUSED.—INSECT PESTS OF YUCATAN.—DR. LE PLONGEON AND THE STATUE OF CHAC-MOOL.—GHOSTS AND GHOST STORIES.—BIRDS OF YUCATAN.—AN ANCIENT WATERING-PLACE.

AT nine o'clock they reached the hacienda of Uxmal, where they were invited to breakfast. The invitation was accepted, and immediately after the conclusion of the meal the party continued to the ruins, which



ARCHWAY OF LAS MONJAS, UXMAL,

were about a mile farther on. The mayordomo invited them to make the place their home as long as they were in the neighborhood. Mr. Burbank gave an evasive answer to the invitation, at the same time earnestly thanking their host for his courtesy. To decline absolutely might seem a rudeness, and to accept would not accord with their arrangement to live at the ruins of the ancient city.

On reaching the ruins the party halted to consider what should first be investigated. Doctor Bronson asked the youths if they had any suggestions to make, whereupon Frank intimated that he desired above everything else to visit the Dwarf's House.



HACIENDA OF UXMAL.

"Why so?" queried the Doctor.

"On account of the very pretty legend connected with it," replied Frank. "It is given by Stephens, Charnay, and others who have been here, but the best form of it is by Mrs. Le Plongeon."

Then he read the following from "New and Old in Yucatan:"

"'During the reign of a certain Maya king there lived a woman who was both feared and respected, for she was a wonderful sorceress. A son was born to her, and he became a great favorite, for he was good and clever, though very small—in fact, a dwarf. Finally he became so popular—probably the people fawned on him to please the formidable witch—that the King grew jealous, and sought his destruction by giving him difficult tasks, so that, failing, he might be accused of disobedience. But, thanks to his mother, the boy always succeeded.

"'One day the King, out of patience, ordered the boy to build in one

night a high mound and a house on the top. The youth was at his wits' end, but went, as usual, to seek maternal aid. "Oh, mother, mother! I shall surely die, for the King has ordered me to do more than I can possibly accomplish;" and he told her his trouble.

""Never mind, my child, don't be alarmed. In the morning the

house will be there."

"It was, and from that day to this has been called the Dwarf's House. The King was enraged. He sent for the dwarf. "I am greatly pleased with the house. Now I want to break six cocoyoles" (small and *very* hard cocoanuts about the size of a walnut) "on your head, and then I will give you my daughter in marriage."

"'The dwarf declined to accept the offer on these conditions. The monarch insisted. "I want you to marry my daughter, and you must

accept my conditions."

"'Again the poor dwarf sought his mother in despair. "There is no hope for me now."

""" Oh yes, there is," replied the clever witch. "You go back to his Majesty and tell him that you accede to his request provided he afterwards allows you to break six cocoyoles on his own head."

"'And to this the King publicly agreed, because he was determined to kill the dwarf with the first cocoyol.

"'Then the sorceress rubbed her son's head with something that made it so hard nothing could possibly hurt it.

"'The King arrived, and the dwarf, in the presence of all the people, laid his head on a stone. With another the King broke the cocoyol on the head of his intended victim—broke all six of them—but the dwarf rose unhurt.

"'Then it was the turn of the monarch to lay his proud head down, and as his scalp was not prepared, the dwarf broke his skull, and thus got rid of his enemy. The agreement had been faithfully carried out, so the public had nothing to say. The dwarf then married the princess and became king."

Of course the marriage of the dwarf to the princess was the end of the story, and Frank so intimated. As the Dwarf's House was visible from where they stood—in fact it is the most prominent object as the ruins are approached—the party went to it at once.

"It stands on an artificial mound about 100 feet high," wrote Fred, in describing the visit, "and therefore was quite a task for the dwarf to accomplish in a single night. Do you doubt the truth of the story? Well, here is the mound with the house upon it, and anywhere around here you

may gather cocoyoles in whatever number you like. Could there be any further proof needed than these facts?

"We climbed to the top by a broad staircase of stone, and it was by no means an easy climb. The steps are narrow and some of them have become displaced, so that we were all tired enough to sit down when we reached the house. The tradition is that when the priests threw the bodies of the victims of sacrifice from the altars they rolled to the bottom of the steps without stopping. The staircase is very wide, sixty or seventy feet; and this great width, combined with the narrow steps, makes it



DWARF'S HOUSE AND EAST WING OF THE CASA DE LAS MONJAS.

a dangerous one to ascend. A single misstep would send one rolling downward, like the sacrificial victims.

"The house was evidently a place of worship, and in this respect corresponds to the teocallis of the Mexicans, which we have already described. Although generally known as the Dwarf's House, it is frequently called the House of the Prophet; and there is a tradition that prophecies were issued from it, as from the temples of ancient Greece and Rome.

"It is seventy feet long and twelve wide, and is covered with sculpture, some of it greatly injured by time, while the rest is well preserved. There are many hieroglyphics that form an interesting study for the archæologist. Several travellers have given translations of them, and I be-

lieve that each one is able to demonstrate that his predecessors were all wrong. We will not attempt to decipher them, as we do not wish to run the risk of our work being overturned by the next comer.

"The building has three rooms; Doctor Bronson says that some of the sculptures on the walls of these rooms are masonic symbols, and he wonders if the race that erected the building were acquainted with the mystic rite. Who can tell?

"Lower down is a sanctuary of two small but very high-ceiled rooms, and having some fine sculpture on the outside. Over the entrance of the sanctuary is the carved head of a mastodon, showing that the people were acquainted with that animal, or at all events had his correct likeness. There are masonic emblems on a cornice that extends around the sanctuary, and on the lower part of the cornice are rings cut in stone, from which curtains were suspended during the ceremonies that were performed inside the building.

"We spent an hour or more inspecting the building and its sculptures, and then gave quite a little time to the magnificent panorama that was revealed from the top of the mound; indeed we had considerable enjoyment of it while resting from the fatigue of the ascent.

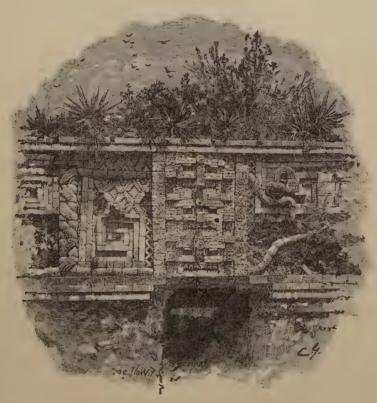
"The pyramid rises from a plain, and at the elevation where we stood or sat we embraced with our eyes a wide area. All the principal buildings of Uxmal were at our feet, and we looked and listened attentively while Mr. Burbank pointed them out.

"Nearest and to the west is the Casa de las Monjas, or 'House of the Nuns,' but whether it was really a nunnery or is only called so for convenience we are unable to say. On a broad and high terrace to the south is the Casa del Gobernador, or 'House of the Governor,' and there is a building close by called the 'House of the Turtles.' Turtles did not live there, but figures of them are on the sculptures that adorn the building. There were several other heaps of ruins, of which I noted the names of only two, the 'House of the Old Woman,' and the 'House of the Pigeons.'

"When we had finished our inspection of the Dwarf's House we descended the steeply sloping pyramid, picking our way very carefully to avoid accidents. Except where the stones are so thick as to afford no clinging ground for vegetation, the sides of the mound are covered with bushes, which are occasionally cut away by the proprietor of Uxmal.

"We went first to the House of the Nuns, which is a building about 280 feet square, with a large court-yard in the centre. There is a high gate-way on the south side by which we entered the house; the house has

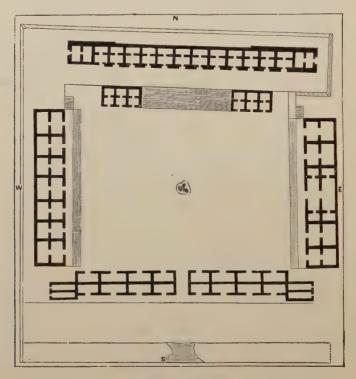
eighty-eight rooms or apartments opening into the court-yard, but no doors opening to the outside. As we entered the court our attention was drawn to the sculptures on the interior façades of the building; on one side there is a representation of two enormous serpents, so immense in size that they run the whole length of the edifice, their exact measurement being 173 feet. Their bodies are twisted together, and in the spaces between the folds are many strange hieroglyphics. We seemed to be once more in India, or some other Eastern country, where serpent worship once prevailed and is by no means unknown at the present day.



FAÇADE OF WEST WING OF CASA DE LAS MONJAS.

"Mr. Burbank told us that the ruins have suffered a good deal in recent years, and at the rate they are being destroyed there will be little more than a few heaps of rubbish remaining here when the next century begins. Nearly every visitor to them thinks he must carry away something, and most people are not at all particular about defacing the hiero-

glyphics or other sculptures. A large quantity of stone has been taken from the ruins for building purposes at the Uxmal hacienda; and the Indians do not seem to have any reverence, or but very little, for the homes of their by-gone ancestors. There are the usual traditions about buried treasures in the buildings, and every little while somebody tries to



GROUND-PLAN OF LAS MONJAS.

find them. Nothing of value has ever been discovered, but the digging that forms a necessary part of every search is a serious injury to the sculptures and walls.

"The hand of man is ably aided in the work of destruction by the tropical vegetation; around the building it is so thick that all access would soon be cut off if the rapidly growing mass were not occasionally cut away in places where paths are desired. The roof is overgrown with yuccas and other plants, that convert it into a sort of hanging garden; their roots, swelling in the crevices between the stones, are rapidly breaking down the walls and converting the whole into a shapeless mass of ruins."

The next spot of interest was the Casa del Gobernador, which has been alluded to in Fred's account of the view from the top of the pyramid. Our friends went there and found not only an extensive ruin, but what was of practical importance, the servants that had been sent on in advance from Merida with the cart and camping equipments. They had already taken possession of the best rooms in the house, and were clearing them out for occupation.

One room served for kitchen and servants' quarters, and the other for parlor, dining-saloon, dormitory, salon de conversacion, reception-room, library, café, art-gallery, and wardrobe. A flat stone made a very fair



CASA DEL GOBERNADOR.

table, and other stones served in place of chairs; hammocks were slung by means of ropes from one wall to another, and altogether the place was comfortable enough for a temporary home.

The kitchen apparatus was not extensive, but it sufficed for the preparation of satisfactory meals, doubtless rendered appetizing by the exercise

which the strangers were getting in the open air. In the middle of the day it was too hot to wander about a great deal; the time was passed in writing, reading, or possibly in the siesta, for which all tropical and semi-tropical countries are more or less famed.

It fell to Frank to speak of the Governor's House, which he did as follows:

"The Governor's House, or Royal Palace, as it is also called, is on the uppermost of three terraces (it could not well be on either of the lower ones), and is 322 feet long by 39 in depth. The building is about 25 feet



GROUND-PLAN OF CASA DEL GOBERNADOR.

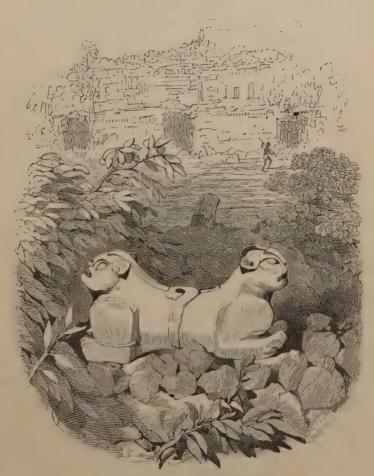
high, and had a flat roof. Some of the ceilings were supported by triangular arches, and others by beams; the beams have rotted away and disappeared, but the stone arches remain intact. The roof was originally covered with cement. The ancient Mayas seem to have possessed a very good quality of cement; but it was hardly equal to that of some of the Eastern nations.

"The top of the building is overgrown with yuccas and other plants, just like the House of the Nuns, and from the top of each of the three towers small trees shoot high into the air. There is not much ornament on the lower part of the walls, but the upper portion is profusely decorated; it is thought that the walls, as high as the cornice, about ten feet from the base, were covered with stucco or cement; and this has been removed by the climate, or possibly torn off during the wars that may have prevailed here.

"The cornice runs around the building just above the three door-ways that give entrance to the place. Above this cornice the whole wall is covered with sculpture, and I can best describe it by copying what was written by Stephens nearly fifty years ago: 'There is no rudeness or barbarity in the design or proportions; on the contrary, the whole wears an air of architectural symmetry and grandeur; and as the stranger ascends the steps and casts a bewildered eye along its open and desolate doors, it is hard to believe that he sees before him the work of a race in whose epitaph, as written by historians, they are called ignorant of art, and said to have perished in the rudeness of savage life. If it stood at this day on its

grand artificial terrace in Hyde Park, or the Garden of the Tuileries, it would form a new order, I do not say equalling, but not unworthy to stand side by side with, the remains of Egyptian, Grecian, and Roman art.'

"One of the interesting features of the Governor's House and other buildings of Uxmal is the 'Maya Arch,' which is formed without a keystone. The sides are built up with stones projecting one beyond the other, and a flat stone is laid across the top. In spite of its violation of the principles on which builders say the arch is based, the work of the Mayas has withstood the ravages of time to a remarkable degree. Specimens of this arch are found here in the Governor's House, and in other parts of Uxmal;



STATUE OF DOUBLE-HEADED DOG, UXMAL.

in fact they can be seen at Palenque, Chichen-Itza, and other historic places in Yucatan and neighboring countries. The archway of Las Monjas is an admirable specimen of this work, and we send you a photograph of it so that you may judge for yourself.

"There was formerly a stone figure here representing a double-headed dog, but it has been carried away. It was found in a mound of earth at the corner of the second terrace, and not far from the House of the Turtles. While we were walking about the terrace Mr. Burbank cautioned us not to fall into one of the ancient reservoirs, or storehouses, which are much easier to enter than to leave. They are a sort of stone jug on a colossal scale—vaults or cisterns ten or twelve feet square and as many deep, with an opening two feet across at the top.

"A friend of his fell into one of these jugs while incautiously walking about. He was stout in figure, and slipped into the hole, with no surrounding space to spare. When they came to get him out it was necessary for him to remove the greater part of his clothing in order that he could be hoisted from his prison; and even then the work was not accomplished until the sides of the opening had been greased. At any rate, that's the story Mr. Burbank told us.

"We have mentioned the House of the Turtles, which is so called on account of a row of turtles ornamenting its façade. It is on the corner of the second terrace, and is supposed to have been the kitchen of the Palace. Fred thinks that if it was really a kitchen the ornamentation will go far to prove that the governor, whoever he was, had a fondness for turtle soup, like a good many governors of modern times. Wouldn't it be funny if turtle soup should prove to have had its origin in Yucatan? Doctor Bronson says that though the Yucateos may have had the article, they did not invent it, as turtle soup was known to the ancient Romans many centuries ago."

Frank and Fred found that a residence in a royal palace had its draw-backs, especially when night came and the bats appeared in large numbers. Furthermore, there were lizards and other creeping things in great abundance, and some of them were especially repulsive.

One of the worst annoyances of their visit to Uxmal was that whenever they moved about they became covered with garapatas. The garapata is a tick so small that it is hardly perceptible to the naked eye, but it is capable of making a bite or sting like that of a red ant or a hot needle. Frank and Fred were reminded of their troubles in Ceylon, when they became covered with land-leeches in their journey to Adam's Peak. Mr. Burbank told them that the best antidote to the garapatas was to rub

one's body with petroleum before venturing where the insects abounded, and that they should change their clothing every time they came in from a walk.

Here is Frank's note concerning these pests of Yucatan:

"They cause a frightful itching, and whenever the fangs of the insect break off in the skin, and they do so very often, the wound is liable to



DECORATIONS OVER DOOR-WAY OF CASA DEL GOBERNADOR.

fester and be some time in healing. Their attentions are not confined to humanity; they attack dogs and other animals, and the poor creatures are sometimes killed by them. M. Charnay gives an account of how a pet dog belonging to the wife of the consul at Merida suffered from the bites

of these insects while out one day in the country. The little animal rolled on the grass and howled in agony, but the garapatas kept on with their biting as though it was all fun to them."

Fred asked Mr. Burbank how many kinds of insects, troublesome and otherwise, Yucatan could boast, but the gentleman was unable to say with any exactness. "There is enough of them to go around," said he, "among



AN UNWELCOME VISITOR.

the whole population, and some varieties go around with surprising activity when the heat and languor of the climate are considered. And if you camp out and sleep on the ground you may quite possibly be roused by a snake trying to get into bed with you and coiling around your arm or leg."

Our young friends were especially ambitious to discover a statue or some other interesting relic of the by-gone race, and so make themselves distinguished as explorers. But their inquiries as to the possibility and advisability of such a proceeding were greatly discouraged when they learned of the experience of Dr. Le Plongeon.

"You doubtless saw the statue of Chac-Mool, the god of fire, in the museum at the capital?" said Mr. Burbank.

"Certainly," replied Fred.

"Well," continued Mr. Burbank, "Dr. Le Plongeon found that statue at Chichen-Itza, where he made extensive excavations at his own expense. It was nine feet in length—too large to be hidden in his coat-pocket, or in any other ordinary way—and therefore he could not take it out of the country. The Government claims all antiquities, no matter by whom they are found, and the officials immediately took possession of Dr. Le Plongeon's 'find,' and paid no attention to his protest.

"The same explorer dug up a statue here in the summer of 1881, and describes it as the finest ever discovered in Central America. He and his wife were working alone when the treasure was unearthed, and with the recollections of the Chac-Mool experience before them, they immediately covered up the precious discovery, and removed all trace of their work.



STATUE OF CHAC-MOOL.

"Learning wisdom by their experience, I would advise against any serious expenditure of time and money in exploring the remains of Uxmal or any other of the sixty or more ruined cities of Yucatan. If you find anything of value it will go into the hands of the Mexican Government and adorn the museum at the national capital. Antiquities of no value can be taken to New York or elsewhere after paying certain duties upon them for exportation."

Frank and Fred thought the advice excellent, and thanked Mr. Burbank for it. They confined their investigations to making sketches and photographs of the sculptures, and measuring the buildings and the apartments in them. They did not undertake any digging operations, and listened calmly to the stories of the natives concerning the vast amount of treasures supposed to be concealed in the ruins of the buildings.

It may be remarked here that the natives were very unwilling to remain around the ruins at night, and all of them who could do so hurried to the hacienda of Uxmal immediately after sunset. They believe that the ghosts of the former occupants revisit the ruins at night, and treat with great severity any one whom they find there.

In support of their belief they told several stories of how Indians who had ventured to spend the night in the ruins had disappeared and no trace of them had ever been found. In other cases their dead bodies were found in some of the rooms of the old buildings, and in each instance the marks on their throats showed that they had been strangled at the hands of the ghosts. A dead Indian was found in a tree-top, where it was impossible to have climbed, or been placed by human hands; the inference was that the ghosts had killed the rash man, and then carried his body into the tree-top as a warning to future intruders.

For cooking and drinking purposes our friends obtained water from a small pond, or *aguada*, which is supposed to have been the watering-place of Uxmal in the days of its glory. It is now partly overgrown with aquatic plants, and is a favorite haunt of the birds, or, rather, one of their haunts, as there are several ponds in the neighborhood of the ruins.

By skilful use of a shot-gun, which formed part of their outfit, the youths obtained several ornithological specimens, which they carefully skinned and preserved. Like the majority of tropical birds, their plumage was brilliant, that of the crimson flycatcher being especially so. Coots were numerous, and formed an agreeable addition to the bill of fare of Uxmal, though our friends were unanimous in the belief that the coots of Yucatan were far behind their namesakes of the Northern States in the matter of edibility.



MAYA ARCHES.

CHAPTER XXXIII.

A CHAPTER ON ARCHÆOLOGY.—NUMBER AND EXTENT OF THE RUINED CITIES OF YUCATAN.—MAYAPAN, THE ANCIENT CAPITAL.—PYRAMID OF MAYAPAN.—AKÉ AND ITS PICOTÉ.—AN ANCIENT WHIPPING-POST.—PYRAMIDS AT AKÉ.—HISTORICAL CONUNDRUMS.—KABAH AND ITS MOUND.—SCULPTURE OF A MAN ON HORSEBACK.—CHICHEN-ITZA.—CHURCH, NUNNERY, CASTLE, AND TENNISCOURT AT CHICHEN.—EXTENT AND CHARACTER OF THE SCULPTURES.—STORY OF THE CONQUEST OF CHICHEN.—SKILFUL RETREAT OF THE SPANISH CAPTAIN.—OTHER RUINED CITIES.—IDOLS OF COPAN.—PROBABILITIES OF CITIES YET TO BE DISCOVERED.

AS before stated, the most interesting of the ruined buildings of Uxmal are the Dwarf's House, the House of the Nuns, and the Governor's House, and these three we have already described. The ruins of other cities are not far away, and when they had finished with Uxmal our friends proceeded to visit those that were the most convenient. The information



YUCATEO SCULPTURE.

obtained in their personal explorations, added to what they gathered from residents of the country and the books already mentioned, was embodied in the following joint work of Frank and Fred:

"There are not less than sixty ruined cities in Yucatan whose location

is known; who can tell how many more are hidden in the dense forests of the rarely visited country of the rebellious Indians, and awaiting the efforts of the explorers?

"To describe all these ruins would be a difficult task; and besides, it would be dreary reading for anybody who is not an eager student of archæology. We will touch only upon some of the most important.



GREAT MOUND AT MAYAPAN.

"About thirty miles from Merida are the ruins of Mayapan, which is said to have been the ancient capital of the country. They are spread over an extensive plain, and though covering a considerable area, are less interesting than the ruins of Uxmal. The ground is covered with a dense growth of trees and plants, and every explorer who devotes any attention to Mayapan is obliged to incur quite an outlay for labor in cutting paths and clearing up the ground. We did not go there, but gathered our information from a gentleman who has been on the spot several times.

"He told us that the most conspicuous object at Mayapan is a pyramid, not unlike that on which the Dwarf's House at Uxmal was built. It

is 100 feet square at the base, and about sixty feet high; it is ascended by a stone staircase similar to that of the pyramid of the Dwarf's House and about twenty-five feet wide. There is no building on the top of the mound, only a stone platform, and explorers do not agree as to whether



CIRCULAR EDIFICE AT MAYAPAN.

there was ever any edifice there or not. Excavations have been made at several places in the mound, and subterranean chambers discovered. Their use cannot be positively determined; of course there are the usual stories

about the concealment of treasures within the mounds, but nothing has ever been found there.

"It is the general belief that most of the buildings of Mayapan were of wood or sun-dried brick, instead of stone, as most of them have disappeared. There is one curious-looking edifice still in position—a circular structure twenty-five feet in diameter, and standing on a pyramidal foundation thirty-five feet high. If you want a detailed description of it look in Baldwin's 'Ancient America,' where there is a picture which shows how it looks to-day.

"Dr. Le Plongeon made an extensive and careful study of Mayapan, which is supposed to have been founded by the Mayas in the fifth century. There was a constant warfare for centuries between the rulers of Mayapan and Uxmal, and the fortunes of war alternated from one to the other. According to the chronicles, King Cocom of Mayapan, with all his sons but one, was murdered by his nobles in 1446, nearly a hundred years before the Spaniards conquered the country, and fifty years before America was discovered by Columbus. When the Spaniards came they found Mayapan in ruins, and the early Spanish writers obtained the traditions concerning it from the people in the surrounding country.

"The Mayas say that the first man of the human race was made out of earth and grass, the former supplying his flesh and bones, and the latter his skin."

At this point Frank asked if the "greenness" of many members of the race was attributable to their grassy origin, as given by the Mayas. Fred dismissed the question as trifling and irrelevant, and then the history proceeded.

"Dr. Le Plongeon was convinced that the Mayas had a knowledge of astronomy, as he found two stone columns on the platform of the mound with a line marked in the pavement between them. These columns, or stelæ, are perfectly 'Oriented' according to the points of the compass, and by means of them the hour of the day could be told, and also the time of the sun's declination. The apparatus was similar to that of the ancient Egyptians and Chaldeans; the Mayas divided their astronomical year into twelve months of thirty days each, and added five days when the sun reached its greatest declination and was said to be 'at rest.'

"The doctor found in the ruins of Mayapan a stone slab bearing inscriptions which referred to the god of fire; these inscriptions seem to have been identical with those of the ancient Egyptians for their sun god, and of the Assyrians for their corresponding deity. Certainly it is a very curious circumstance that these people, so far apart in time and distance, seem to have hit upon the same form of worship and of astronomical calculations.

"We will leave Mayapan now and turn to another ruined city called Aké. These ruins are about the same distance from Merida as those of Mayapan, the former lying to the east and the latter to the south. They are on a hacienda belonging to Don Alvaro Peon, who is always ready to facilitate the visit of any one who desires to explore the ruins.



SCULPTURED HEAD OF YUCATAN.

"The ruins include those of several large buildings, which are presumed to have been palaces, a small pyramid and a large one, together with some other structures, all grouped around an open space or plaza. In the centre of this plaza is a stone pillar called a picoté; and what do you suppose was its use?

"It was a stone of punishment, or whipping-post; it was in use throughout this country both before and after the Conquest, and, in fact, it is not unknown to-day. The culprit was stripped and tied to this post and then publicly whipped, very much as in some of the United States within the memory of men now living. M. Charnay says there is a picoté in use to-day at the Indian village of Tumbala, near Palenque, and presumably it can be found in other Indian villages. The funny part of the business is that the Indians believe a sound thrashing at the picoté makes a man's conscience clean, and to secure such a state of mental affairs they often come forward and ask to be whipped when nobody knows of anything to entitle them to punishment.

"We don't care for any picoté just now, and so we'll drop it. There is at Aké a small pyramid about forty feet high, and built of large stones that were put together without cement. There was once a house on top, but it has crumbled away, and the sides of the pyramid are a good deal dilapidated. Then there is a large pyramid with a broad top, and on this top are three rows of stone pillars about ten feet apart one way and fifteen feet the other. The esplanade on which these pillars stand measures fifty by two hundred feet; the pillars are built up of flat stones about three feet square by fifteen inches thick, and there are ten stones in each perfect pillar. We have said there are thirty-six pillars, but only twenty-nine are standing, and from several of these some of the stones have been displaced.

"Now, what was the use of these pillars? This is a conundrum that has excited all visitors, and nobody has been able to make an explanation that has not been overthrown by some one else. Some have argued that the pillars and the stones of which they are composed were intended to mark certain epochs of time; one writer says the pillars were built up by placing single stones there at intervals, so arranged that each pillar would take 200 years for its construction. According to this theory, the erection of the thirty-six pillars would cover a period of 7200 years, and thus make the foundation of the edifice older than that of the oldest of the pyramids of Egypt.

"Opposed to this theory is that of the explorers who believe the pillars, or columns, were the supports of the roof of a temple. The roof, they say, was of perishable material and disappeared ages ago, but the stones remain. The columns are from fourteen to sixteen feet high, and the work of putting the stones in place was by no means small. The builders understood architectural principles, and that they lived and died long, long ago there can be no doubt. When it was that they lived no one has yet been able to say positively.

one has yet been able to say positively.

"In some of its features this great pyramid of Aké is one of the wonders of Yucatan. The platform on which the columns are ranged is reached by a stone staircase that seems to have been built for giants. It measures 137 feet from one side to the other, the steps are more than



PILLARS OF GREAT GALLERY, AKÉ.

four feet from front to rear, and each step is sixteen inches high. When you bear in mind that the steps of a staircase of modern construction are usually about nine inches high, you will understand what a 'getting upstairs' it is to ascend this great pyramid.

"A fierce battle was fought here between the Spaniards and Mayas at the time of the Conquest, and the remains of a Spanish fort or redoubt can be distinctly traced.

"From Ake we will turn to Kabah, which lies a few miles to the south of Uxmal. Kabah was a large and very old city. How large it was nobody can say exactly, as a dense forest covers the site, and a great deal of cutting is required to visit any part of it. Every fresh visitor to Kabah discovers something new whenever and wherever he penetrates the forest. Some of the recent explorers have found many ruined buildings that escaped the observation of Stephens, who thought he had examined the entire extent of the city.

"There is a stone-faced mound at Kabah nearly 200 feet square at the base, and with a row of ruined apartments all around it. A few hundred



HEAD OF INCENSE-BURNER.

yards from the mound is a terrace about twenty feet high and measuring 150 by 200 feet on the top. There is a ruined building on this esplanade which was evidently of great beauty and large proportions when it was built. It was beautifully ornamented, according to the account of Mr. Stephens, who says, 'The cornice running over the door-ways, tried by the severest rules of art recognized among us, would embellish the architecture of any known era.' He calls attention to the fact that while at Uxmal the walls were smooth below the cornice, those at Kabah were covered with decorations from top to bottom.

"In addition to the mound and the terrace Mr. Stephens described three other large buildings, which he thought must have been

palaces. One of them was three stories in height, each story being nar-

rower and shorter than the one below it. It was 147 feet long by 106 wide, and built in a manner that would be creditable to any architect of any age or country.

"Another building on a high terrace was 164 feet long but quite narrow in proportion, and a peculiarity of it was that it had wide door-ways, with pillars in the centre for support. One terrace 800 feet by 100 was found, with several fine buildings upon it. The work of making the terraces alone, without considering the buildings, must have been something enormous.



MAYA SCULPTURE (PROFILE).

But all trace of the builders has gone, and no one can tell to-day what is their history.

"A few years ago (June, 1881), Mr. Aymé, the American Consul at

Merida, visited Kabah and made a remarkable discovery. He found on one of the walls of a ruined building a rude painting of a man mounted on a horse. As the horse was unknown in Yucatan until after the arrival of the Spaniards, M. Charnay argues from this discovery that the ruins of Kabah are not of great antiquity, and that the painting was made during or since the Conquest by a native artist. On the other hand, Dr. Le Plongeon argues that the work is of very great age, and he refers to some of the hieroglyphics in proof of his belief.

"You can take your choice between two experts, one placing the age of the painting at less than 400 years, and the other at two or three thousand years and perhaps more. For our part we prefer to believe in the



RUINED ARCH AT KABAH.

one who maintains that Kabah was an old city when the Romans built the Coliseum, and had begun to decay long before Mohammed founded the religion of Islam.

"We must not forget to mention a beautiful arch at Kabah which is wonderfully suggestive of the triumphal arches of the Romans and other



FAÇADE OF EL CASTILLO.

European nations. It stands apart from the other structures, and this fact leads explorers to believe that it was built to commemorate an important event in the history of the people or of one of its rulers. The centre of the arch has fallen in, but the massive columns remain and show that it was firmly built. The arch is not the straight-sided one of the Mayas, but curves like the Greek and Roman arch. What a pity the crown is gone, so that we do not know whether it was built with a key-stone or not!

"From Kabah let us go to Chichen-Itza. We will go in imagination rather than in reality, as the ruins are in the region of the rebellious Indians, and it isn't safe at all times to venture there. Let us call the place Chichen 'for short.'

"It lies about thirty miles west of Valladolid, which was once a prosperous city and contained the first cotton-mill ever erected in Yucatan. Valladolid was deserted at the time of the rebellion of the Indians in 1846, and has never regained its former population. The ruins of Chichen cover an area of about two square miles, and have been explored by Stephens,



BASS-RELIEF, CHICHEN-ITZA.

Norman, Charnay, Le Plongeon, and others; and the historians say that the Spanish army that conquered Yucatan occupied the ruins and found them useful as a fortification against the Indians.

"There is a building at Chichen which resembles the House of the Nuns at Uxmal, and has the same name. It seems to have been erected at different periods, and some of the explorers think a portion of it was altogether destroyed and afterwards rebuilt, as the style of architecture is different. The ornamentation is more elaborate than that of the House of the Nuns at Uxmal. Over the door is a medallion representing a priest

with a head-dress of feathers; and there is a row of similar heads running around the whole length of the frieze of the northern façade. The upper story is ornamented with panels cut into the stone, and having a raised figure in the centre. You can best understand this design if you look at



DOOR-POSTS IN TENNIS-COURT.

a picture which we have taken from 'The Ancient Cities of the New World'

"Connected with this building is one which the Spaniards call the Church; it has only one room, and is twenty-six feet long by fourteen wide and thirty-one high, and the outside is covered with carved ornaments. Not a great way from it is a circular building twenty-two feet in diameter and sixty feet high, and having four doors that are placed exactly towards the cardinal points of the compass. building is on a mound, and is approached by a grand staircase forty feet wide and having a balustrade formed of bodies of serpents twined together. Serpents have a prominent place in the ornamentation of Chichen, as they appear in one form or another on nearly all the buildings.

"A very interesting building is the one which Stephens called the Gymnasium or Tennis-court. It consists of two parallel walls 30 feet thick, 274 feet long, and 120 feet apart, and in each wall there are stone rings, or circles, four feet across, with holes one foot seven inches in diameter in the centre. These holes are opposite each other and twenty feet from the ground, and it is supposed that a game something like tennis was played in the space between the walls. Baldwin's 'Ancient America' says there were similar courts in other cities of Yucatan and Central America, but no account of the games has come down to us.

"The Casa Colorada, or Red House, is a building that would be creditable to the architects of any country and time, though it is not a large edifice. It measures forty-three feet by twenty-three, and appears to have been elaborately ornamented originally, but has been greatly defaced by time, and also by the Indians, who formerly lived in the vicinity. Before the Indian rebellion there was a town near Chichen called Pisté; its inhabitants used to go to Chichen to practise shooting against the ruined edifices there. Many of the buildings show the marks of bullets, and it is probable that the people of that town caused quite as much destruction as did the Indians.

"But the most conspicuous of all the buildings of Chichen is El Castillo, or The Castle, which stands on an artificial hill, and is reached by a wide and long staircase, so overgrown with weeds and brushwood as to make the climbing difficult. It is the building usually occupied by explorers, as it offers a good place of defence against any marauding bands



CASA COLORADA.

of Indians; whether it was a castle or not in the olden times is a question, but it has certainly served as one in the days since the rebellion of the Indians.

"This is a good place to repeat a story given by one of the Spanish historians about an incident at the time of the Conquest. Under the command of Montejo, an officer under Cortez, the Spaniards occupied Chichen for two years, and were engaged in constant fights with the Ind-

ians. Montejo lost 150 of the 400 men whom he took there originally, and finally the Indians laid regular siege to the place, and pressed Montejo so hard that he was forced to retreat.

"But it was no easy matter to get away, as the Indians would be sure to fall upon the Spaniards in their flight, and probably destroy the entire force. So they waited until a moonless and stormy night, and under cover



HEAD OF WAR-GOD, FROM COPAN.

of the darkness managed to get away and be several hours on the road before their absence was discovered.

"In order to deceive the Indians, Montejo caused the feet of the horses to be muffled with cloths, and lest they might find by the silence that the place was evacuated, he left a dog tied to a pole on which were a bell and a piece of meat. Every time the dog tried to reach the meat he rang the bell, and thus the Indians supposed all the while that the Spaniards were still behind the walls of Chichen. It was not until daylight that they discovered their mistake, and then there was not time to overtake the fugitives before they reached the territory of a friendly chief.

"Let us return to the Castle of Chichen. The pyramid on which it stands is 175 feet square at the base, and 68 feet high; the staircase is thir-

ty-nine feet wide, and contains ninety steps. The building is about forty feet square and twenty-one feet high, and its internal arrangements show that it was probably a temple, like most of the edifices of similar character throughout Mexico.

"The walls of the Castle are covered with inscriptions and sculptures, and the greater part of them forcibly remind the visitor of the work of the ancient Egyptians. The columns which support the sanctuary present bass-reliefs of men supposed to be priests; and these figures are repeated on the walls along with other sculptures. And to make a long story short, and avoid the risk of being tedious, we will say that all the buildings of Chichen are elaborately ornamented. Tradition is that when the Spaniards came here there were many mural paintings in beautiful

colors, but the pious invaders thought it their duty to destroy these pagan symbols, and so covered them with stucco and whitewash! Had they left them alone we might have learned much more than we now know about the ancient inhabitants of Yucatan.

"We haven't space to describe all the sculptures, or even a quarter of them, but must refer anybody who is interested in the subject to the books of the explor-And we must do ers. the same for the other ruined cities of Yucatan and the countries near it: Palengue with its palace, Copan with its great wall and its wonderful idols and other sculptures, Tikal with its temples constructed of large blocks of stone laid in cement, each merits a separate chapter, but we have no room for it. The same may be said of other places, and it is quite possible that there are dozens of cities buried in the tropical for-



IDOL OF COPAN (FROM STEPHENS).

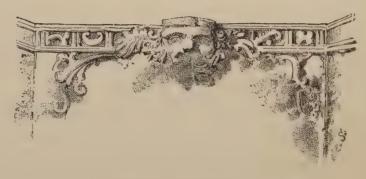
ests of which absolutely nothing is now known. We may hope for a revelation of the mysteries of the ancient cities of the New World whenever the work of discovery is undertaken on an extensive scale.

"Explorations have hitherto been made by individuals, whose means did not permit the employment of a sufficient number of men for clearing away the dense undergrowth and making the necessary excavations. The natives are not well disposed towards explorers, and, as we have already seen, some of the ruined cities are in the regions where the Indians are in control. There is a large area which is practically unknown, and can only be opened up by a force of men sufficiently large to take care of itself against all local opposition. Only by the liberality of wealthy men and societies, or aided by the arms of disciplined soldiers, can the work be thoroughly accomplished."

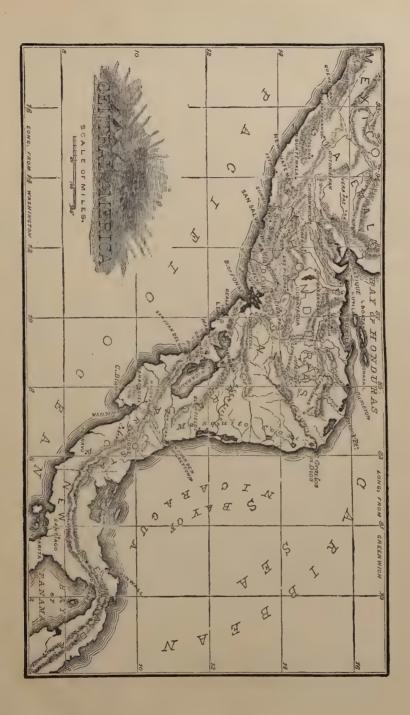
Here the youths closed their account of the antiquities of Yucatan. Frank carefully read what they had written, and as he paused at the end of the narrative, Fred remarked.

"Perhaps we may have an opportunity some time to make the explorations we have suggested."

"Let us hope so," replied Frank, with a "far-away" sigh as he spoke.



DECORATION OVER DOOR-WAY.



CHAPTER XXXIV.

CENTRAL AMERICA AND THE REPUBLICS COMPOSING IT; A SKETCH OF THEIR HISTORY; AREA AND POPULATION.—SNAKES, LIZARDS, AND OTHER CREEPING THINGS.—COSTA RICA AND ITS REVOLUTIONS.—A PRESIDENT WHO COULDN'T READ.—HONDURAS AND ITS RESOURCES.—VISIT TO TEGUCIGALPA.—YUSCARAN AND ITS MINERAL WEALTH.—UNFORTUNATE FINANCIERING.—INTERESTING SOCIAL CUSTOMS.—INTEROCEANIC CANALS; THEIR PRESENT STATUS.—THE NICARAGUA CANAL; SURVEYS, ESTIMATES, AND DESCRIPTION OF THE ROUTE; PROBABLE ADVANTAGES TO THE WORLD'S COMMERCE; TERMS OF THE CONCESSION; ESTIMATED COST, REVENUES, AND SAVING OF DISTANCES.—FAREWELL TO MEXICO.—THE END.

AFTER completing their description of the ruined cities of Yucatan, Frank and Fred looked around for something new to occupy their attention. They were not long in finding it.

"I wish we could extend our journey to Central America," said Fred.



IN A CENTRAL AMERICAN FOREST.

"So do I," answered his cousin, "but I'm afraid Doctor Bronson would not consent. His plans do not include a journey farther south than Yucatan, and besides, I don't think he would relish the idea of

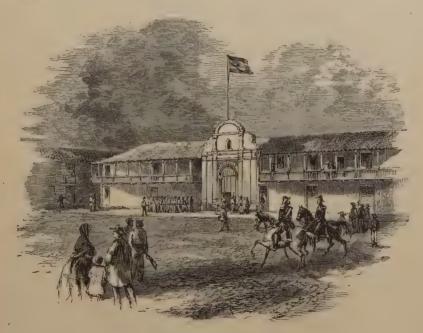
making a trip through a region where the comforts of travel are as limited as they are between here and Panama."

They sounded the Doctor on the subject, but did not receive any encouragement. His arrangements were such that he was to be in New York by a date that would make it impossible to accomplish the proposed journey.

The youths cheerfully assented to the situation, and consoled themselves by collecting a fair stock of information about Central America and entering it in their note-books; Frank said this was the next best

thing to seeing the country for themselves.

"Central America," wrote Frank, "is about 900 miles long, and varies from 30 to 300 miles in width. It extends south about eleven degrees from the eighteenth parallel of north latitude, and is therefore entirely in



GOVERNMENT PALACE, SAN JOSÉ.

the tropics. The geographers give it an area of 175,000 square miles, and a population of something less than three millions, the greater portion being native-born Indians. The whites and creoles are nearly all of Spanish descent, as the country was conquered and occupied by the Spaniards soon after the Conquest of Mexico."

Fred suggested that a census of the snakes, lizards, birds, and beasts of Central America would give a large population, as it was known to abound in those things to a very liberal extent. He declared in advance that he would not accept the office of animal census-taker, as he had understood that the serpents were numerous and dangerous, as is the case in tropical countries generally.

"I was reading this morning," said he, "of a snake of the constrictor species that was killed close to a hacienda where the writer of the narrative was stopping. It was fourteen feet long, and not unusually large of its kind. The people of the hacienda said it was fortunate that the creature had been despatched, as it would quite likely have killed one of the children; and they related many stories about babies being swallowed by these serpents.

"The same traveller, Mr. Wells, tells about a ceremony that he witnessed where a tamagasa, one of the most deadly snakes of Central America, was burned alive in the public square of a village. Two natives had found the snake basking in the sun; one threw his poncho over the reptile while the other held its head to the ground with a forked stick till its mouth could be sewed up, so that it could do no harm. The snake was about three feet long. The ceremony took place in the evening, and the village priest pronounced a malediction upon the creature before it was consigned to the flames. No remedy is known for the bite of this serpent, nor for that of the taboba, another venomous product of Central America."

"To go on with the country," said Frank, when Fred paused at the end of his snake story, "we will remark that Central America comprises five republics which are independent of each other, Costa Rica, Honduras, Guatemala, San Salvador, and Nicaragua. Down to 1823 they were colonies of Spain; in that year they formed themselves into a federal republic of States and declared their independence. They continued thus until 1839, when they dissolved their federation and became independent of each other. Since then they have united again on two or three occasions, but have not remained so for any length of time. Several attempts at a federation (one of them in 1888), have resulted in nothing. Now and then the republics have wars among themselves, but the rest of the world goes on as if nothing had happened, as the moon did when the dog barked at it.

"The governments of the States of Central America are republican in form, modified by revolution and assassination; happily these modifications are not applied as frequently nowadays as in former times, but they are by no means unknown. To show how revolutions are started and how they sometimes turn out, let us take a page from the history of Costa Rica."

Thereupon Frank read from "The Capitals of Spanish America" the account of how the Government of that republic was overthrown, and a new one established in 1871. Substantially it was as follows:

The Congress of Costa Rica had caused a railway to be surveyed from ocean to ocean across the State. It was necessary to seek foreign aid for



CENTRAL AMERICAN LODGINGS.

the construction of the line, and the two banking houses at San José, the capital city, were rivals for the appointment of Government agent to negotiate the loan.

The defeated banker was, like his rival, an Englishman (married to a Costa Rican lady), and the capital of his bank was English. In revenge, and with a view to business, he determined to overthrow the Government and set up one of his own.

To this end he negotiated with a cowboy named Thomas Guardia, who had made a reputation as commander of a small force of cavalry in a war with Nicaragua, to head a revolution, under promise of money and position. The army of the republic comprised about 250 men, and they were



BANANA PLANTATION IN COSTA RICA.

easily overcome by Guardia, who assembled half that number of cowboys and rode suddenly into San José one morning, capturing the whole place by surprise. It was one of the "revolutions before breakfast," to which Central America is accustomed.

Guardia imprisoned all the Government officials who did not run away, and appointed himself Dictator. Among the fugitives was the constitutional President, and therefore it was necessary to hold an election for a new President, Guardia being made provisional President until the election could be held. The English banker, who had started the revolution, named his father-in-law as the candidate for President, and it was expected that he would be elected without opposition.

Guardia concluded, from his experience as Dictator, that it was not a bad thing to be President, and when the election came off he ordered his officers to secure the position for him, and leave the banker's father-in-law out in the cold. He was unanimously elected; 2000 votes were cast in a population of 200,000, and Guardia received them all.

He was unable to read or write when he became President, but he was a man of decided ability, called wise counsellors to aid him, did everything he could for the advancement of his country, and altogether made an ex-

cellent ruler for the little republic.

The present President of Costa Rica is Don Bernardo de Soto, who was a favorite of Guardia, and is a man of good education. He graduated



DON BERNARDO DE SOTO, PRESIDENT OF COSTA RICA.

at the college in San José, and completed his studies in Europe; and since his elevation to the high office he has shown ability and intelligence in the management of public affairs.

During their investigation of Central America the youths met Mr. Wilson, of New York, an old friend of Doctor Bronson's, who had just

returned from a visit to Honduras. He readily replied to all the questions that were propounded by Frank and Fred, and his answers may be summed up as follows:

"I found Honduras very interesting," said Mr. Wilson, "and was sorry that I could not remain longer. The country seems to have great promise,

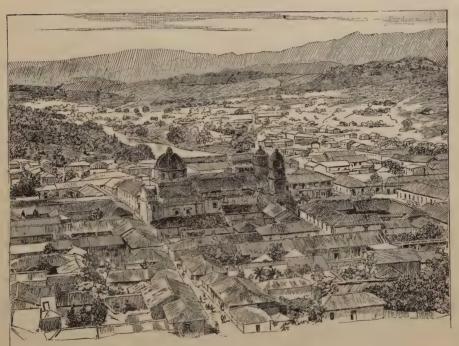


GEN. LUIS BOGRAN, PRESIDENT OF HONDURAS.

as it is exceedingly fertile, and the mountain regions contain great quantities of gold and silver. All tropical fruits grow there in abundance, and there might be a large product of coffee and sugar. At present the exports consist chiefly of cattle, mahogany, hides, and rubber, of a total value of about two millions of dollars annually, and the imports are nearly as much. The expenses of conducting the government are not far from one million dollars a year, sometimes exceeding the revenue, and sometimes falling below it.

"Honduras has been unfortunate financially," continued the gentle-

man, "as it contracted a loan in England for building a railway across the country from ocean to ocean, and the greater part of the money went into private hands and not in the most honest way imaginable. Twenty-seven million dollars' worth of bonds were negotiated in London, under the guarantee of the Government, and all that the country has to show for this large amount of money is about sixty miles of poorly built railway.



TEGUCIGALPA, CAPITAL OF HONDURAS.

Since 1872 the interest on this loan has not been paid, and probably it never will be; in the negotiations the Government and the purchasers of the bonds were deceived, and the country never obtained more than a small fraction of the benefit that was promised.

"Negotiations are now going on for wiping out the debt by issuing new bonds for a part of it, and creating a new loan by which the Interoceanic Railway can be completed and other railways constructed. The
President of Honduras, General Bogran, is a man of great enterprise, and
has done much for the country since he took possession of his office. His
predecessor had built a fine boulevard from the capital part way to the Pacific coast, but from that point there was only a mule-track, the same that

had been there for three hundred years. General Bogran made a contract with some American engineers to build a wagon-road from the coast to the end of this boulevard, and another from the capital, Tegucigalpa, to Yuscaran, the centre of the principal mining district."

"Please tell us about the mines of Honduras," said Frank, as Mr. Wilson paused for a moment.

"Certainly, I'll do so with great pleasure," was the reply. "Honduras was the first part of the main-land of North America visited by Columbus and his companions, and as soon as Cortez had completed the conquest of Mexico and established himself firmly on its soil he proceeded to the subjugation of Honduras. From the time of the Conquest down to 1820 the mines of Honduras yielded enormously of gold and silver; the Government took as its share twenty per cent. of the gross product, and whenever a district proved to be unusually rich the King acknowledged the



STREET IN YUSCARAN.

good-fortune by 'decorating' the place. This was a much more economical proceeding than reducing the taxes or granting a sum in money for public improvements.

"Perhaps you don't understand me," said Mr. Wilson, as he observed a puzzled expression on the faces of the youths. "When I was at Tegucigalpa I examined some old documents in the Government library, and came upon one containing the following paragraph:

"'The flourishing state of the mining interests and the large returns

they brought the Crown influenced the King, so that on the 17th day of July, 1768, there was given to the *pueblos* (villages) of San Miguel, Tegucigalpa, and Heredia the honorable title of *villas* (cities).'

"A decree of that sort is exactly like conferring a decoration on an individual," continued the gentleman. "It costs nothing to the giver, and makes the recipient proud of his distinction, at least that is supposed to be the purpose of a decoration.

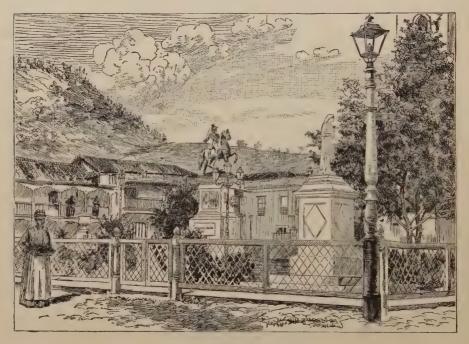


OLD BRIDGE AT TEGUCIGALPA.

"To show you how rich were the mines of Honduras, let me instance the Guayabilla mine in the Yuscaran district. It is about fifty miles east of Tegucigalpa, and near the line of Nicaragua, at an elevation of 3250 feet above the sea-level. In the old days the ore was so rich that the owners of the mine did not reduce any that yielded less than sixty dollars per ton, and after the mine was deserted \$60,000 was obtained from it by a gentleman who now lives in the country. From 1812 to 1817 the King's fifths from this mine amounted to \$400,000, so that in five years the product of the mine was \$2,000,000. In 1837 the mine had been worked to a depth of 300 feet, when the miners were impeded by water. Accordingly they prepared to abandon the mine, and did so by removing the pillars for the sake of the ore they contained. Of course the mine caved in soon after the pillars were removed, and the same was the case with other mines that were similarly maltreated."

Fred asked Mr. Wilson how many productive mines there were in Honduras during the time of its occupation by the Spaniards.

"As to that I cannot say exactly," was the reply, "but at a rough calculation there were not fewer than fifty in the Yuscaran district that were culation there were not fewer than fifty in the Yuscaran district that were once active and paid royalties to the King. In the Choluteca and Tegucigalpa districts there were fully 100 mines, so that we may safely count 150 in all. Under the enlightened policy of President Bogran Americans and other foreigners have interested themselves in the mineral wealth of Honduras, and several of the mines are now being operated with modern appliances, which give promise of great results. Some of them are producing ore in such quantities as to fully justify their former reputation.



STATUE OF MORAZAN, TEGUCIGALPA.

Under the old system there was no arrangement for getting rid of superfluous water and foul air. Modern pumping and ventilating machinery has been adopted, and the old annoyances that hindered operations or suspended them altogether will be of comparatively little consequence."

"Please tell us something about Tegucigalpa, the capital city," said

Frank.

"It received its name," said Mr. Wilson, "from two Indian words signifying 'mountain of silver.' It is about 3000 feet above sea-level, and



eighty miles from the seaport, on the Bay of Fonseca. It has 15,000 inhabitants, its houses are of adobe, and the streets narrow and paved with stone. The most interesting structures are the cathedral and an old bridge over the Rio Grande, the latter consisting of seven massive arches that appear to be as strong to-day as when first erected. In the public square there is a bronze equestrian statue of Francisco Morazan, who is honored as the liberator of Central America, as Bolivar is of South America. He was born in Honduras in 1799, was foremost in the war of independence, became President or General-in-chief of the Republic of Central America in 1835, was exiled in 1840, and assassinated in 1842."

"His history is not unlike that of the majority of patriots in Spanish America," remarked Frank, as Mr. Wilson paused.

Frank then asked about the people and their customs. Mr. Wilson said they were not materially different from those of other Spanish American countries. The dress of the natives is practically the same as that of the natives of Yucatan, while that of the higher classes follows in a general way the fashions of Paris. "While I was at Tegucigalpa," said he, "I attended a fashionable ball, which was quite a social event, as the President and his Ministers were there. The gentlemen were in evening dress, as they would have been at a ball in New York, and the ladies were robed as for an evening reception in Paris or London.

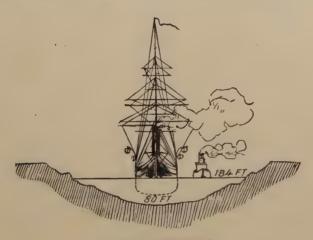
"Upon entering the salon each guest was presented with handsomely painted egg-shells by servants who carried them about on trays. These shells were filled with gold and silver tinsel. Gentlemen broke them over the heads of ladies whom they wished to favor with their attentions, and the ladies did likewise towards the gentlemen. Nearly all the ladies and some of the gentlemen carried atomizers filled with perfumery. When one found an atomizer aimed at his face it was the proper thing to stand firm, receive the spray without wincing, and then join in the laugh which followed. The effect of the egg-shells and atomizers was to make the party very sociable and agreeable and break the ice of formality."

Mr. Wilson was called away at this moment, and consequently the talk about Honduras came suddenly to an end.

Then the youths turned their attention to Nicaragua, and especially to the proposed ship-canal which is to make use of Lake Nicaragua for a part of its route. On this subject they questioned Doctor Bronson, and re-

ceived the following reply:

"The idea of an interoceanic canal originated soon after the Spanish Conquest. In 1550 Galvo, a Portuguese navigator, presented a plan for such a canal, and pointed out four possible routes, those of Darien, Panama, Nicaragua, and Tehuantepec, and it is a singular circumstance that no other routes have been discovered since his time. The world's commerce then and for more than 200 years afterwards was not sufficient to



A SECTION OF THE CANAL.

justify the construction of a canal, and the first step towards such a work was taken in 1779, when Lord Nelson seized the mouth of the San Juan River, in Nicaragua, as a preliminary to the control of the river and lake, and the opening of a water-way across the isthmus.

"Very soon after Lord Nelson's action a Spanish exploring expedition arrived at the mouth of the San Juan, and the complications arising between the English and Spanish Governments prevented any active operations towards the making of the canal. In 1823 the President of Nicaragua opened negotiations with the Government of the United States with that object in view, but nothing was accomplished. In 1826 the Government of Mexico made a preliminary survey of the Isthmus of Tehuantepec to ascertain the possibility of a canal across it, and two years later the



RIVER SAN JUAN AT TORO RAPIDS.

Government of New Grenada permitted a survey of the Isthmus of Panama for the same object. In 1844 Nicaragua gave a concession to a Belgian company, which accomplished nothing; and in the same year Louis Philippe authorized a survey of the Isthmus of Panama.

"In 1849 an Irish adventurer published a book in England in which he declared that he had crossed and recrossed the Isthmus of Darien several times, and that there would be only three or four miles of deep cutting for the entire distance. On the basis of this book, some English capitalists sent an engineer, who made an equally rose-colored report that resulted in the formation of an English company, with a capital of \$75,000,000. The engineer does not seem to have crossed the isthmus at all, and only penetrated a few miles into the interior. The Darien route was explored by Lieutenant Strain, of the United States Navy, in 1854, who demonstrated that the reports of the English engineer were

'conspicuously inexact,' and a canal would cost very much more than his estimates.

"In 1849 negotiations between the Government of Nicaragua and our Minister to that country led to the formation of an American company, of which Commodore Vanderbilt was a stockholder, with the object of making a canal by the Nicaragua route. Col. O. W. Childs and a staff of assistants surveyed the route, but the enterprise was broken up by the filibustering expedition of Walker, 'the gray-eyed man of destiny,' which caused the Nicaraguan Government to revoke the concession.



STREET IN GREYTOWN.

"From this time onward the interest of Americans in the canal project continued active. Several exploring expeditions were sent out by individuals and associations, Mr. Frederick M. Kelley, a wealthy New Yorker, sending out four expeditions, and spending \$125,000 out of his own pocket. Between 1870 and 1875 the United States Government sent out nine expeditions for the survey of canal routes between the Atlantic and Pacific oceans, and altogether a valuable amount of information was gathered on the subject.

"In 1876 Lieut. Bonaparte Wyse obtained a concession from the Government of Colombia for a canal at Panama. His concession was trans-

ferred to M. De Lesseps, the famous builder of the Suez Canal; and you know all about the history of the Panama Canal, as it has been recorded in the daily newspapers and other publications.

"An impartial consideration of the various reports upon the surveys of all the routes has shown that the most favorable one for a ship-canal from ocean to ocean is that across Nicaragua. This was the decision of



EL CASTILLO, SAN JUAN RIVER.

a commission appointed by President Grant, and consisting of Commodore (since Admiral) Daniel Ammen, Chief of the Bureau of Navigation, Gen. A. A. Humphreys, Chief of the United States Engineer Corps, and Mr. C. P. Patterson, Superintendent of the Coast Survey. Briefly, their report said: 'The Nicaragua route possesses, both for the construction and maintenance of a canal, greater advantages, and offers fewer difficulties from engineering, commercial, or economical points of view, than any one of the other routes shown to be practicable,

"Careful scientific surveys have been made of the Nicaragua route. The first was in 1872 and 1873, by Commander Hatfield and Commander Lull, of the United States Navy; and the second, in 1880, by Civil En-

gineer A. G. Menocal, also of the United States Navy. In 1884 the same officer, with several able assistants, made another survey; with all the figures and descriptions of the different surveys, the nature of the work to be accomplished in cutting the canal can be readily understood."

For further information Doctor Bronson referred the youths to the printed reports of Mr. Menocal and Commander Lull, which he had in his possession, and also to articles in *Harper's Weekly* and *Harper's Magazine*. Frank and Fred made a careful study of the subject, and the substance of what they learned may be set down as follows:

The route of the proposed canal will be entirely through the State of Nicaragua, except for a small part of the eastern division, where it will be on the south bank of the San Juan River, which is the dividing line be-

tween Nicaragua and Costa Rica. The latter State has agreed to all the conditions named by Nicaragua in its concession to the American company that is undertaking the work, so that the question of boundary will not interfere with the enterprise.

In March, 1887, a contract was signed with the Republic of Nicaragua by a representative of the Nicaragua Canal Association of New York, securing to the association the exclusive right of way for the construction of a ship-canal between the Atlantic and Pacific oceans. The company is allowed two and a half years from the date of the contract for beginning operations; it has a grant of 1,000,000 acres of land, and immunity from taxation and all imposts of every kind for a period of nine-ty-nine years. It is believed that the entire work will be completed and the canal made ready for the passage of ships within six years from the commencement of the dredging and digging.

The length of the canal will be 170 miles from ocean to ocean. Of this distance there will be 130 miles of navigation on Lake Nicaragua and the San Juan River, leaving only forty miles for excavation or cut-



VIEW ON LAKE NICARAGUA.

ting. The surface of Lake Nicaragua is 110 feet above the level of the sea, and to reach or descend from this elevation there will be four locks between each end of the lake and the ocean from which it is separated. The lake is 110 miles long by 35 wide, and is a beautiful sheet of water in a basin 8000 square miles in extent. The plans are for locks 650 feet long and 65 feet wide, which will float any ship now in existence.

For convenience of description we will suppose the canal to be in three divisions, eastern, middle, and western. The eastern division begins at Greytown, on the Caribbean Sea, at the mouth of the San Juan River, and extends to the Arroyo de las Cascades, a distance of nineteen



MOZO IN FULL DRESS.

and one-half miles. This division contains sixty-three per cent. of the excavation required for the whole canal; it will include the digging of a channel through the low lands of the coast, and then through rising ground and hills, where locks must be made to raise the canal to the level of the lake.

At the end of the eastern division a dam across the San Juan River will fill the channel of that stream to a depth sufficient for the passage of sea-going vessels, and also create a lake, or basin, where ships may pass each other, and also halt for repairs if any are needed. In some places the river must be

dredged to reach the requisite depth, but these points are not numerous or difficult. The river is 1000 feet wide, so that ships will have plenty of room for moving either way, and there will be about eighty-three miles of river navigation from the dam to the lake.

On Lake Nicaragua the distance from the head of the San Juan River to the beginning of the western division is fifty-six and one-half miles, and here there is abundant depth of water except in one place where some rock-blasting and dredging will be needed.

Rio Lajas, on the western shore of the lake, will be the end of the middle, or navigable, portion of the canal, and the beginning of the western division, which extends seventeen and one-quarter miles to the Pacific Ocean. On this division ships coming from the east will descend by four locks, while those from the west will rise by the same means. The last of the locks, the one nearest the Pacific, will have a varying depth to accommodate itself to the rise and fall of the ocean tide, which is about nine feet. The entrance of this lock will be of a funnel shape, and a port will be formed by throwing out jetties on each side of the little bay of Brito, and converting it into a secure harbor.

At the eastern end of the canal jetties will be thrown out in the same way to form a harbor at the mouth of the San Juan River close to the old harbor of Greytown, which has been partially filled by the sands brought down by the river, and has a depth of only twenty-one feet at its entrance. The current of the river will be utilized for washing out the entrance of this harbor, just as that of the Mississippi was utilized by Captain Eads for deepening the passes of the great "Father of Waters" at its mouth.

Frank and Fred made careful note of the above, and then asked Doctor Bronson how much it was expected the canal would cost, and how the profits had been calculated.

"The estimates of the engineers," was the reply, "place the cost of the whole work at \$60,000,000 in round figures; some of them make it



FORT SAN CARLOS.

ten or twelve millions less, but as estimates nearly always fall short of the actual cost, we will suppose that the figures are \$100,000,000. I think it is safe to say the canal can be built for that amount of money."

"How does that compare with the Suez and the Panama canals?" Fred asked.

"The cost of the Suez Canal was \$100,000,000, and it has been a very profitable enterprise. Double that amount of money has been expended



NATIVE BOATS, LAKE NICARAGUA.

on the Panama Canal, and only one-fourth the work is done; even if it should ever be completed, the revenues cannot be sufficient to pay a good dividend on the cost after deducting the running expenses. The Nicaragua Canal will have a great advantage over the one at Panama, for the reason that the latter is in the region of equatorial calms, while the former is within the sweep of steady winds. Consequently the Panama Canal will be of little use for sailing-ships, and they would all be attracted to the Nicaragua route."

"What is the estimate of the amount of business of the Nicaragua Canal, and the revenues from it?" queried Frank.

"I can best answer that question," replied the Doctor, "by quoting from a writer in *Harper's Magazine*. He says the wheat trade between our Pacific coast and Europe requires a million tons of shipping, and as each ship must pass twice through the canal, this trade alone would be two millions of tons a year. The coasting trade between the Atlantic and Pacific ports of the United States would add another million tons, and the tea trade between Europe and China and Japan, the guano and nitrate trade of South America, the whaling trade of the Pacific, the wool trade between Australia and Europe, would altogether bring the business of the canal up to five or six millions of tons a year. At two dollars a ton, the

toll that is charged by the Suez Canal, there would be a revenue of ten or twelve million dollars without considering the growth of the world's commerce from year to year. It is estimated that the running expenses and repairs to the canal would not exceed half a million dollars annually, so that there would be a good profit on the outlay of \$100,000,000."

Fred asked what saving of distances would be effected by the canal.

"Between the Atlantic and Pacific ports of the United States," was the reply, "the saving would be 8000 or 9000 miles over the Cape Horn route. From New York to ports in Asia and Australasia there would be a saving of 500 to 3000 miles over any route except by Suez, and between Europe and Japan sailing-vessels will save 3000 miles by taking the Nicaragua route. There can be no reasonable doubt that the world's com-



CENTRAL AMERICAN HACIENDA.

merce will be greatly benefited by the opening of the proposed canal, and in a few years we may see it operated to its full capacity, of every year passing eleven thousand ships from ocean to ocean."

Fred was ready with another question, but before it was put a friend called to tell them that a steamer for Havana and New York had just arrived at Progreso, and would leave in a few hours.

Nicaraguan canals and all other Central American subjects were

dropped, and preparations immediately made for departure. Already their farewell calls had been made on friends and acquaintances at Merida, baggage was quickly in readiness, they were at the station in ample



BIRDS OF NICARAGUA.

time for the train, and before sunset were on the deck of the steamer, which speedily put her machinery in motion, and steamed away to the eastward.

And so ended the tour of the Boy Travellers in Mexico. The land of the Aztecs and Toltecs disappeared in darkness and distance, and when morning dawned only sea and sky were visible from the deck of the vessel.

"Wonder what country we will see next?" said Fred.

"Quien sabe?" was the laconic reply.













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